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VOL. CLVIII APRIL 12 1940 No. 5071

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THE BUILDER

INCORPORATING

"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

VOL. CLVIII APRIL 12 1940 No. 5071

THE NEW EVACUATION SCHEME

THE failure of parents to register their children under the new evacuation scheme has proved even more serious than was expected. According to figures given elsewhere, only 52,451 children out of 456,250 have been registered in the County of London and the 26 neighbouring evacuable areas. Less than 10 per cent. of the parents have responded to the Government's appeal, and the parents of about three-quarters of the children have not expressed an opinion one way or another. The appeal, it must be recalled, was to parents to promise to send their children away if bombing were to make dispersal necessary.

The poorness of this response will, we believe, cause some hard thinking in Whitehall, and is likely to lead to considerable changes in the organisation of what the Government believes, and with justice, to be an essential part of our plan of campaign, for it has been stated that opinion is growing that no second dispersal to private billets will be successful. Short of compulsion, therefore, it would seem imperative that special accommodation should be provided for the dispersed children, not only for sleeping quarters, but, even more vital, for feeding, educational, social and health services, and also for young children accompanied by their mothers. As the A.R.P. Co-ordinating Committee has stated in the proposals put before the Minister of Health and the President of the Board of Education last week—

> "The basic cause of the breakdown is the failure to take account of either the viewpoint or the welfare of parent, host or evacuee. The greatest single cause of failure is the well-nigh intolerable discomfort and inconvenience caused by the virtually complete reliance on household billeting (camp schools accommodate only 1 per cent. of evacuable schoolchildren).
>
> "While much can be done by adapting existing buildings, a considerable constructional programme is required . . . the complete programme would employ some 150,000 unemployed building workers for 18 months or two years, and would cost about £104,000,000. That the expenditure is quite in proportion to the importance of the matter is apparent if one realises that the capital cost, if repayment were spread over two years, would add less than 6d. to each £1 at present being spent on the war. Further, the measures would bequeath a valuable legacy to peace-time England.

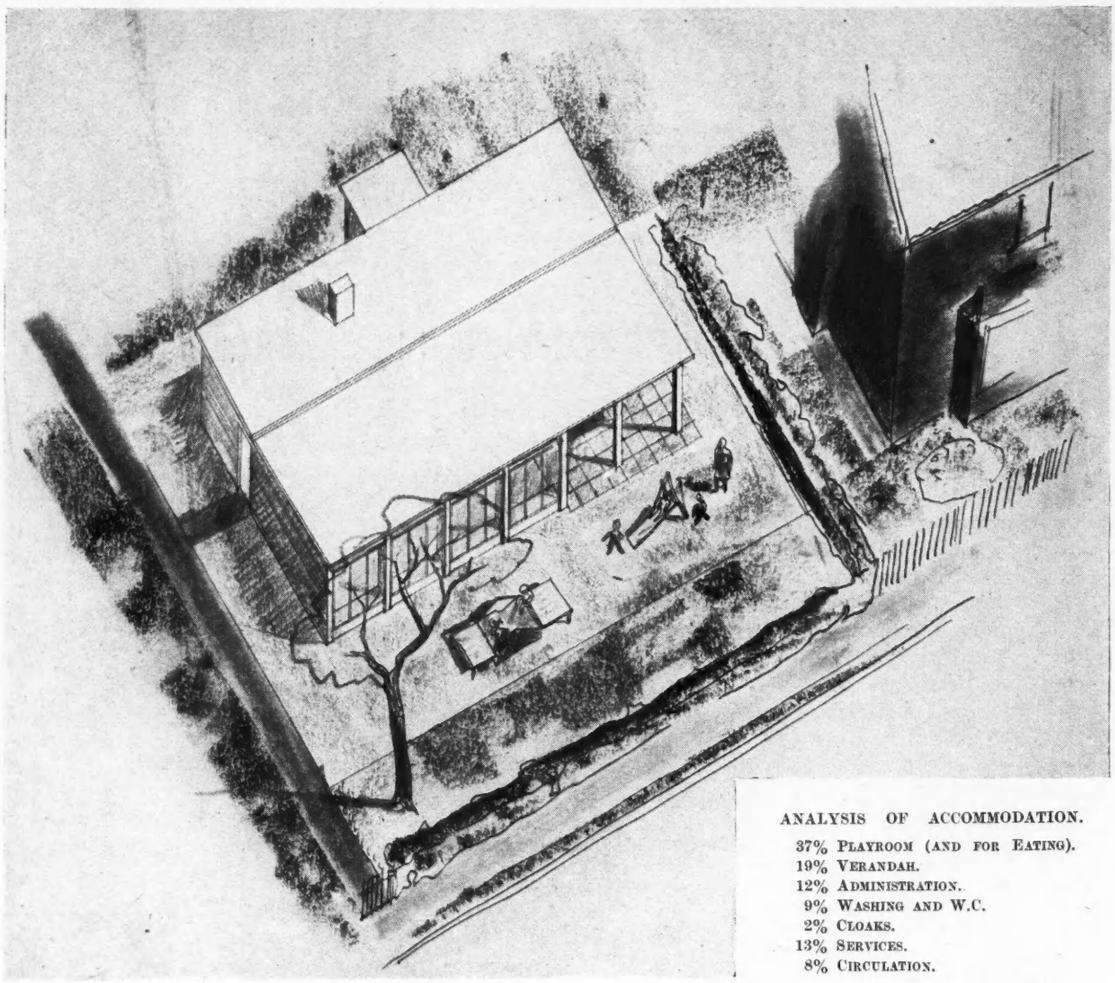
We do not underestimate (nor does the Government) the importance which intensified warfare may attach to the evacuation of children. Past events, and especially the expansion of the field of operations which has taken place this week, bring us squarely face to face with the fact that we are fighting not only for our material survival, but for our spiritual existence. The sacrifices which we are being called upon to bear must go for nothing if we cannot feel that the generation which follows shall be physically, mentally and morally fit to undertake the remoulding of a shattered Europe nearer the heart's desire.

On such grounds alone we consider that no steps should be left untaken to ensure that the parents of the nation's youth be not compelled to make that choice between the possibility of their children being bombed and the greater probability of mental and moral disruption which a balance between remaining in danger areas and a return to the lame arrangements in evacuation areas is at present forcing upon them.

Is the proposal practicable? Are men, materials, money and professional skill available? There can be but one answer to this. At present 130,000 men are still without work; the money represents an additional charge of only 5 per cent. to the present charge of the war, if spread over two years, which does not take into account either the savings on unemployment benefit or the returns to the Exchequer in direct and indirect taxation; and the professional services are available in full. Materials also are to hand, as Mr. W. H. Hamlyn has shown in his Chadwick Trust lecture on Tuesday (reported on page 438).

Not the least attractive part of the plan is that a programme of evacuation building would have a positive value at the end of the war. As Mr. Hamlyn points out, the number of persons who came under the scheme for holidays with pay amounted to nine millions—a number likely to increase. It would be possible for evacuation camps to be planned and constructed for easy conversion to holiday centres at the conclusion of the war. In this case it should be fully possible to recoup a part at least of the capital cost and maintenance charges.

In an extension of the holiday camp movement, Mr. Hamlyn sees hope for a richer and fuller existence through better communal understanding, especially if what he terms "the International Holiday Camp" should be fostered. While this is outside the scope of the present problems of evacuation, it represents a point of view deserving of close study by those who feel that prevailing social conditions are not unrelated to present world disharmony.

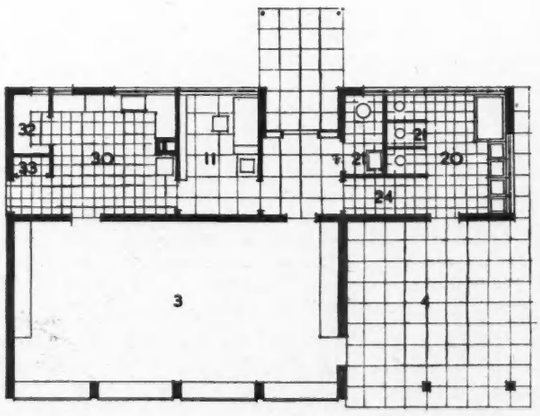


ANALYSIS OF ACCOMMODATION.

37% PLAYROOM (AND FOR EATING).
19% VERANDAH.
12% ADMINISTRATION.
9% WASHING AND W.C.
2% CLOAKS.
13% SERVICES.
8% CIRCULATION.

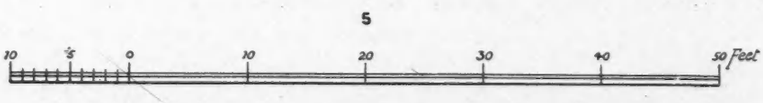
A DESIGN FOR A NURSERY SCHOOL FOR 20 CHILDREN.

Designed by Mr. Ernö Goldfinger, D.P.L.G., with Miss Mary Crowley and Miss Anne Parker, AA.R.I.B.A., this Nursery School is from the Exhibition of Photographs and Equipment now on show at the Housing Centre in Suffolk Street, S.W. Twenty children would be accommodated.



KEY TO PLAN.

3. PLAYROOM FOR 20 CHILDREN.
4. VERANDAH.
11. WARDEN'S ROOM.
20. WASHING.
21. W.C.s.
24. CLOAKS.
30. KITCHEN.
32. LARDER.
33. STORE.



NOTES AND NEWS

Unemployment in the Industry.

THE monthly statement issued by the Ministry of Labour and National Service shows that there was a very substantial improvement in employment between February 12 and March 11. Between these dates the number of registered unemployed in Great Britain fell by 382,887 to 1,121,213—an improvement of 605,716 on the figures for March, 1939.

The improvement in employment was most marked in building, public works contracting and agriculture and horticulture. The other principal industries in which employment increased included coal mining, brick making, stone quarrying, iron and steel and metal goods manufacture, engineering, ship building and repairing, road transport, tailoring, printing and bookbinding, the distributive trades and hotel and boarding-house service.

Detailed figures of unemployment among building trade workers are:—

March 11, 1940.	February 12, 1940.	March 13, 1939.
129,714 ...	265,432 ...	160,101

135,718 more building trade workers and 30,068 more public works labourers were employed at March 11 last as compared with the previous month, the latter figure being 39,703 better than for March, 1939.

The New Evacuation Scheme.

THE failure of parents to register their children under the new evacuation scheme has proved even more serious than was expected, according to "The Times." No national total will be available until later in the month, but only 52,451 children out of 456,250 have registered in the County of London and the 26 neighbouring evacuable areas. Less than 10 per cent. of the parents have responded to the Government's appeal, and the parents of about three-quarters of the children have not expressed an opinion one way or another.

The tendency among parents is to believe that there will never be any serious bombing, but that does not explain why they should refuse to promise to send their children away if bombing makes dispersal necessary. Opinion is growing that no second dispersal to private billets will be successful, and rumour has magnified the experiences both of hosts and guests. Registration has been just as disappointing in Glasgow, and Manchester and other large cities.

Architecture of Norway and Denmark.

AN exhibition of photographs of architecture of Norway and Denmark was opened at the Building Centre on Thursday. It consists of about 350 photographs by Mr. F. R. Yerbury, including rural architecture from all parts of Denmark, buildings in Copenhagen, old and new rural architecture of Norway, and ancient and modern architecture in Oslo. The exhibition will be open daily until Friday, May 3 (10 a.m. to 6 p.m.).

The S.P.A.B.

THE quarterly report of the Society for the Protection of Ancient Buildings indicates that the Society's work is to continue, in spite of the present difficult times, from its new quarters at 55, Great Ormond-street. During the last four months, the Report states, it has become increasingly evident that vigilance on the part of all members is vital, for although building is at a standstill for the time being, the fact does not prevent the planning of new roads involving the demolition of valuable historic buildings, the preparation of schemes for slum clearance, and the planning of new stores on housing estates. The George Inn at Winchester and the Clarendon Hotel at Oxford (both of which are eventually to be demolished) are examples showing that the Society's plans for the future must be prepared. The need for the continued activities of the Georgian Group is, it seems, equally apparent. At present the Group is devoting particular attention to a plan to ensure that measured drawings should be prepared, where they do not exist, of all buildings of outstanding merit. The Windmill Section is to direct its efforts to the repair of working mills rather than to the preservation of mills for purely æsthetic reasons.

The appointment of a new Secretary (in place of Mr. William Palmer, who resigned on the ground of ill-health last July) has been postponed for the time being, and Mr. F. W. Troup, F.S.A., F.R.I.B.A., will carry on as Hon. Secretary.

The I.A.A.S.: A Conference on Building.

SPEAKING at the annual luncheon of the London and Home Counties' Branch of the Incorporated Association of Architects and Surveyors, Mr. J. E. Swindlehurst stated that the Incorporated Association were proposing to hold a public discussion some time in May, at which representatives of the various sides of building would be able to make concrete suggestions for maintaining the industry during war time. Sir Alfred Hurst, K.B.E., would take the chair.

Housing Work, Glasgow.

GLASGOW Corporation is to commence work almost immediately on the erection of 1,500 houses at the Pennilee site, Cardonald, Glasgow, for the use of workers employed in factories at the Hillington Industrial Trading Estate. The use of timber will be reduced to a minimum, and plans have already been submitted with alternative methods of construction, including pre-cast concrete.

Society of Antiquaries: Gold Medal.

THE gold medal of the Society of Antiquaries for distinguished services to archæology will this year be presented to Dr. Aarne Tallgren, Hon.F.S.A., of the University of Helsinki. The presentation will be made at the anniversary meeting at 5 p.m. on Tuesday, April 23, after the President has delivered his anniversary address.

COMING EVENTS

Tuesday, April 16.—Housing Centre. Luncheon. Miss Neville Rolfe on "Responsibility." 1 p.m.

Wednesday, April 17.—Royal Society of Arts. Mr. H. V. Potter on "Plastics as Constructional and Engineering Material." 2.30 p.m.

Wednesday, April 17. — Incorporated Association of Architects and Surveyors. Mr. Gilbert Bayes on "Fashion in Sculpture and its Relationship with Architecture."

Saturday-Saturday, April 20-May 11.—Architectural Association. Exhibition of the Artists' Society at the Langham Sketch Club.

Mr. Frank Pick.

THE retirement of Mr. Frank Pick from the Vice-Chairmanship of the London Passenger Transport Board marks the end of an association with railway transport extending over 38 years, for 33 of which he has been directly connected with the Metropolis and its transport—the "Underground" group of railways, the electric tramways, the motor-bus services, and, lately, the trolley-bus service.

Mr. Pick's realisation of the part that planning and design can play in transport has been responsible for much of the best of London's architecture, beginning with Underground House, continuing through the long list of tube stations, which have set a new and high standard of civic design, and ending with purely utilitarian structures — among them garages, electricity sub-stations, shelters, and even bus-stop indicators—which are stamped with the mark of fitness for purpose. In this work Mr. Pick has chosen well his collaborators, among whom Messrs. Adams, Holden and Pearson must take a leading place, closely followed by the Board's own architectural staff under Mr. Stanley Heaps, L.R.I.B.A. His interests have extended to the graphic arts as well, as is shown by the magnificent series of posters by leading artists on various aspects of London life which are so well-known a feature of the Underground stations. Less obvious but equally valuable has been the encouragement given to sculptors, not only in the form of the Epstein and Gill work on Underground House, but in the delightful series of tiles depicting London scenes recently designed by Harold Stabler, which are to be found in the newer stations.

Mr. Pick is a member of the London and Home Counties Traffic Advisory Committee, and has only recently resigned the Chairmanship of the Council for Art and Industry. A notable contribution by him to the war effort was the planning and successful execution of the Government evacuation scheme for London in the early days of the war.

IN 1915.

EXTRACTS FROM *The Builder*, APRIL 9.

ARCHITECTS would generally admit to a desire to build for all eternity, were that possible . . . but a review of the changing conditions of human life, the transitory movements of population in certain localities and the altered methods under which many industries are carried out, and above all, the growth in the requirements of hygiene, leads us sometimes to wonder whether future developments will not lead us to the erection of a far greater number of buildings whose life will be intentionally limited from the outset. . . . At first sight such a point of view is unpleasant to the architect . . . but whether a building be designed for 50 or 500 years, the same essentials of space, proportion, and the disposition of solids and voids will always remain.

* * *

Supporting a vote of thanks to Mr. Hilaire Belloc for reading a paper on "Permanent Fortifications," Mr. H. Austen Hall (Acting President of the A.A.) "thought it conceivable that after several centuries architects might again be called in to assist in the design of fortifications."

CAMPS

DESIGN, CONSTRUCTION AND HYGIENE

THE CHADWICK "BOSSOM GIFT" LECTURE

THE Chadwick Trust "Bossom Gift" Lecture for 1940 was delivered at 26, Portland-place, W.1, on Tuesday, by MR. WILLIAM H. HAMLYN, F.R.I.B.A., who took as his subject "Camps: Their Design, Construction and Hygienic Arrangement." MR. ALFRED C. BOSSOM, F.R.I.B.A., M.P., was in the chair.

The development of the holiday camp (began the lecturer) had now reached a stage when there was a possibility of losing its true principles, namely, the open, free and somewhat Spartan life, with its essential leadership and community spirit, the desire for which had been the impelling force in camp evolution. The tendency to introduce so-called amenities in the commercial holiday camp with the object of winning the patronage of campers was leading to a gradual transition from camp to pseudo hotel. In the future planning, therefore, a definition would appear necessary, leading to a careful restraint in order to ensure the preservation of camp principles. A camp should be a camp, a holiday resort, a resort and a hotel no more or less than its name implied. There was room for all.

The Development of the Camp.

After giving a brief review of camps of various countries, the lecturer continued:

The rapid development of camping in Britain dated from the conclusion of the last war, which was followed by the erection of numerous shacks, derelict omnibuses and tents on vacant sites on the coast. Those became, and still were, a source of public nuisance. At last more enlightened enterprise entered the field of supply, with the result that Gorleston-on-Sea, Rogerson Hall, and, last year, Prestatyn revealed the holiday camp designed and erected under the control of architects.

The provision of holiday accommodation in the form of camps was, however, provided through other channels than commercial, among them being the National Council of Social Service and the London County Council. The following general requirements for School Camp accommodation were obtained from the London County Council Education Officer:—

1. The planning will be affected by the nature of the camp, whether it is to be used for short periods or occupation throughout the year.

2. For short-term camps, class rooms are unnecessary and only moderate accommodation for teachers.

3. For continuous occupation, class rooms are necessary and teachers must have good sleeping accommodation, rooms for individual study and a good common room for teachers.

SLEEPING CABIN, HOLIDAY CAMP, GORLESTON-ON-SEA, SUFFOLK.

4. Dormitories should have a minimum space of 40 sq. ft. per occupant. Double bunks are not recommended on account of possibilities of breath infection.

5. Lavatories should be planned so that they may be reached by covered way from the dormitory blocks.

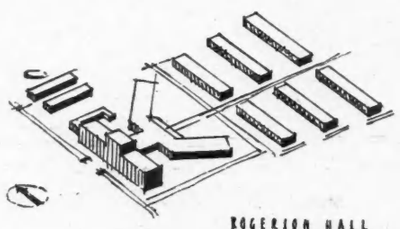
6. Plenty of cupboard space should be provided for children's clothes in order to encourage tidiness.

7. Drying room for clothes required.

8. Sick bay with resident nurse and isolation room.

9. Accommodation for cleaning and cooking staff, etc.

10. House for head teacher and camp manager, with two bedrooms in each.



ROGERSON HALL HOLIDAY CAMP ACCOMMODATES 350 ADULTS AND HAS A 56 ACRE LAY-OUT.

11. Sorting room for laundry work if this is to be done on the site.

12. A workroom for repairing clothes and mending socks.

13. When all has been provided there should be at least two rooms for accommodation not thought of in the schedule.

14. Outside: A dry playing area surfaced with asphalt or other suitable material should be provided and consideration given as to whether a small portion should be sheltered.

Camps for Evacuation.

The National Camps, inaugurated last year by the Government, were now nearing completion, and several had been opened and occupied. The programme embraced the construction of about thirty camps for the purpose of supplementing evacuation in wartime and with the main peace-time purpose of school camps. There had been a certain amount of re-planning in order to provide accommodation for classrooms now that those institutions were to be used as permanent scholastic accommodation. In most of the pre-war school camps no classrooms were incorporated because the educational curriculum was primarily for outdoor and nature studies.

The camps were planned to accommodate each approximately 300 children, a number which was regarded generally as a suitable one for control. The general arrangement of the buildings consisted of a main dining-room, assembly hall, hospital unit, classroom buildings, dormitories and lavatory blocks. The general layout of the camps was simple, effective and confined generally to two or three groups of dormitory buildings with the dining-room and assembly hall forming the central point in the lay-out.* There was in some instances a tendency to place the dormitory huts in rows, which might, if continued over a large area, result in a somewhat monotonous effect.

If the scheme of camps were expanded it might be desirable to treat some of the lay-outs on a courtyard or more open type of planning, in order that they might be used after the war as holiday camps. If such a principle could be adopted, some further consideration to the design of the dormitory sleeping accommodation might be desirable in order to facilitate conversion to alternative uses, such as individual rooms for adults. It would be possible to design a structure which would give flexibility in replanning without interfering with the roof or its main supports.

* A typical completed National Camp was given in *The Builder* for October 13 last.—ED.

Camps and Permanent Decentralisation.

"With the recent attention given to the locating of industrial populations and the advent of the report of the Royal Commission on the Geographical Distribution of the Industrial Population, the essential character of a comprehensive national planning scheme becomes more clearly apparent," continued the lecturer. "Here again camps might be considered as the nucleus for permanent settlement in the vicinity of satellite industrial centres. There are initiated, of necessity during war-time, industries, factories and centres of production of a special character located in unusual and often rural districts. Workers, military and civil, are housed in the vicinity of these units. The siting of such factories and their working populations, if carefully studied, might in some instances form the basis of permanent post-war centres, and thus eliminate considerable wastage. Architects could contribute largely to such developments.*

"The principle needing definition is whether evacuation and industrial camps are to be extended and regarded as permanent buildings planned for easy conversion to other uses, or whether they are to be considered as temporary shelters to be demolished at the expiration of the war. Until this principle is defined, such camps can be neither related to holiday centres nor industrial units. Here is a problem demanding immediate solution, for it is vitally related to that broader development of national life which will commence the day war is finished."

The problem of evacuation and holiday accommodation might be considered generally as follows: It had been estimated that the number of children and adults to be evacuated in England would be approximately 4,000,000. If there were constructed large camps, each accommodating 2,000, or small groups of camps for a similar number, the number of camps or groups would be 2,000.

It had been stated by Mr. Ernest Brown, the Minister of Labour, that the number of persons who came under the scheme for holidays with pay amounted to about 9,000,000—a number likely to increase. Taking into account wives and children of many of these people, it might be assumed that the number of persons who had not been accustomed to taking holidays was of the order of at least 18,000,000. If the holiday season was reckoned at 18 weeks, the number of persons to be accommodated each week would be 1,000,000, or three-quarters of the estimated evacuees. Evacuation camps could, therefore, be 75 per cent. temporary buildings and 25 per cent. permanent buildings, planned and constructed for easy conversion to holiday centres at the conclusion of the war. Assuming a maximum estimate of cost at £100 per head complete, the total expenditure on camps with accommodation for 1,000,000 persons would be £100,000,000, or 17 days war cost at £6,000,000 per day.

Military Camps.

The possibilities of using military camps for post-war holiday or other camps had already been considered and widely discussed. Unlike evacuation camps, the sites for which could be selected in attractive parts of the countryside, the new military camps (many of which are grouped in the vicinity of exist-

* A scheme designed by Messrs. A. Llewellyn Smith and A. B. Waters, AA.R.I.B.A., for a camp hostel for boy workers in factories (for the Homes and Hostels Committee) was illustrated in *The Builder* for November 24 last.—ED.

ing units) were sited in parts of the country the very nature of which, whilst fulfilling Army requirements, thereby rendered them unsuitable for holiday camps. It was possible, however, in some instances, to plan the military layout in such a form that it could serve also the civil purpose.

Such an arrangement had recently been carried out in the extension of one holiday camp. Here Army sleeping huts, which were originally to be laid out in the usual military lines, had, through the collaboration of the railway company's architect and the military authorities, been placed in such a form that, with the minimum of destruction and alteration, the general features of the existing camp layout could be repeated in the final planning after the War Office had finished with the premises. Furthermore, the military huts, provided they were still in reasonably good structural condition, could be converted for use as holiday sleeping accommodation.

Construction.

A preliminary research into site conditions, local labour and material was, of course, essential if construction was to be the most efficient consistent with cost. The wise man would first of all survey local conditions.

The physical properties which appeared to be desirable for camp buildings were weather resistance, good thermal insulation and resistance to sound transmission, and internally, to impact from boisterous holiday-makers, who sometimes perpetrated considerable damage to wallboards. As the cost of camps fell of necessity among the low scale of building economics, thick walls such as 9-in. brickwork for sleeping accommodation, were, in most instances, prohibited. The material, therefore, should, in addition to possessing the properties mentioned, be of the minimum thickness, and thereby economise on site cover. Speed of erection was, in certain cases, of major importance, and indicated a prefabricated system and dry erection on site. The general principles enumerated were intended to apply to examples where individual sleeping accommodation was intended. The sound-resisting properties were not so important in dormitory buildings, but it might be assumed that such buildings were not desirable as adult accommodation in holiday camps.

The materials principally used in camp construction were :—

Timber.—The principal advantage of timber was its lightness combined with strength properties, which afforded great flexibility in constructional design whilst facilitating prefabrication on the unit principle; transportation in convenient sections; and dry assembly and finishing on the site.

Against timber were the risk of fire, decay and, most important, the incursion of vermin such as spiders and wood lice in the cavities formed within the timber framework. The maintenance of timber buildings by the periodical application of paint or preservative added to the cost of upkeep, whilst preservatives were not always acceptable from the æsthetic aspect. Protection against these defects could be adopted, but with additional cost, for example, by the use of cedar.

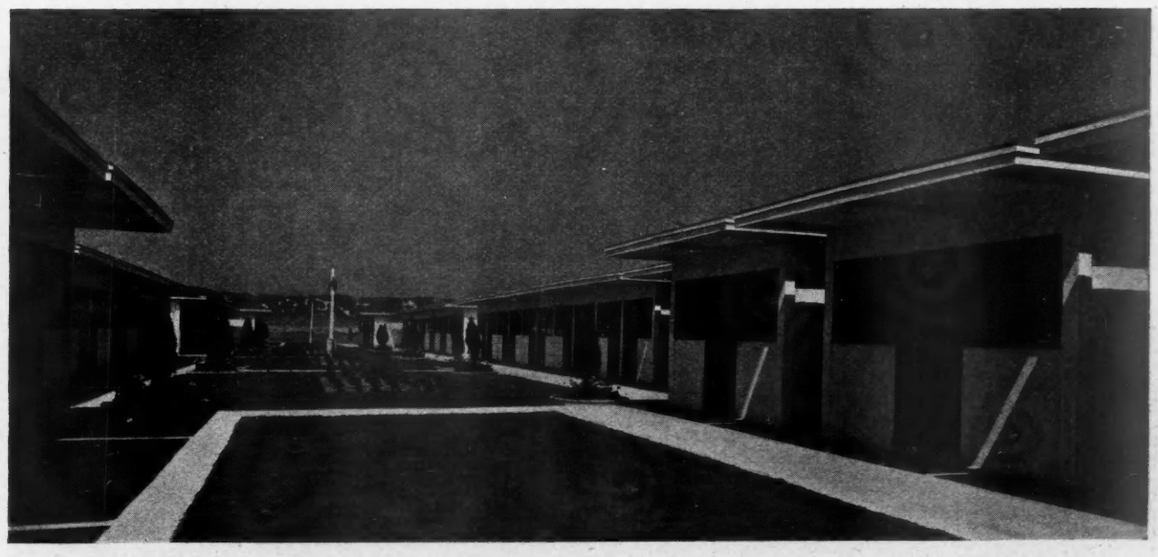
Brickwork.—The use of brickwork on holiday camps had been confined primarily to the larger buildings, such as dining halls, social centres, etc. Probably one reason for the use of other materials was that most camps had been built at the seaside at some distance away from brick-making centres. There was a case for half-brick-wall construction in the smaller buildings, especially now that there was, and would be for some time, a shortage of timber.

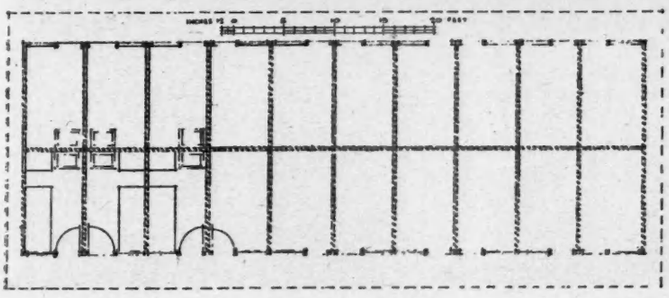
Wire or Patent Mesh.—There were ways of constructing small buildings which were based on the use of wire or patent mesh fixed to a wood or metal frame. The mesh was then plastered, and if proper materials were used and applied in an efficient way, such forms of construction could yield good results, provided that local labour were available. The method did not permit of prefabrication.

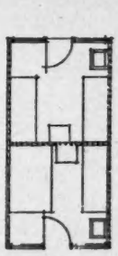
Concrete or Burnt Clay Slabs.—There were various methods of constructing small camp buildings with concrete or burnt clay slabs set in a framework of concrete pillars. There was nothing new in this arrangement. It was introduced about 30 years ago as an economical form of construction for one-storey buildings, and was probably an adaptation from brick piers and panels. It called for no special comment, except that it had been transformed through the use of special materials into prefabricated systems which had introduced more rapidity into erection than the old method.

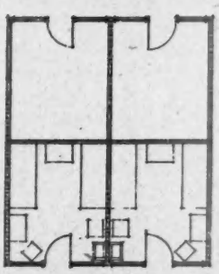
Precast Concrete to Eliminate Timber.—There was now a necessity to design forms of construction that would eliminate the use of timber, and several systems had already been introduced. An interesting example consisted of the use of hollow concrete blocks, made by spreading a thin layer of fine concrete on paper and then rolling this around wooden mandrills. When the concrete was set and the mandrill withdrawn, the result was a very light but strong hollow block or tube, which could be set dry between precast concrete posts and then plastered. The outer plaster was water-resisting, whilst the inner one might be mixed to avoid condensation. The whole system, with the exception of simple foundations and the plastering, could be fabricated at works, including complete roof units. The advantages were rapid manufacture; quick site erection; a dry floor raised above ground level (if derirable); and good thermal and acoustic insulation by virtue of the character of the blocks.

A type of construction used by the architects, Messrs. Ernest and Geoffrey Buckingham, in the chalets at Gorleston Holiday









TERRACE TYPE DOUBLE TYPE FAMILY TYPE

THE CHALETS, PRESTATYN HOLIDAY CAMP, NORTH WALES.

MR. WILLIAM H. HAMLYN, F.R.I.B.A., ARCHITECT TO THE L.M.S. RAILWAY.

Camp consisted of foam slag concrete slabs, rendered on the outside with water-resisting cement and plastered internally. The roofs were constructed of foam slag concrete *in situ* covered with asbestos sheets in layers.

PATENT COMPOSITION SLABS.—The system used at Prestatyn for chalet construction was based on the old slab and post system, but so designed that with the exception of jointing the slabs and plastering, the materials were either constructed or assembled in the factory. The material for the slabs was composed of specially prepared wood shavings, chemically impregnated, bound together with cement, and pressed into moulds, to form units which were of sizes convenient to handle. Unlike most prefabricated systems, the slabs could be made to suit the general design. The construction was therefore more flexible than that in which the precast units controlled dimension. The material used was 2 in. thick, in slabs 7 ft. by 1 ft. 11 in., weighing 57 lb.

On the site of each chalet a 4-in. concrete raft was constructed reinforced with steel fabric. For each pair of chalets three grooved concrete posts, 6 in by 6 in., were erected at each side of the raft, and the raft was thickened to form a foundation under each post. Each post, factory made, had an iron dowel in each end, that at the upper end passing through a 6 in. by 3 in. timber plate, which was braced at the angles by a $\frac{1}{8}$ in. thick steel gusset.

Roof construction now proceeded, and consisted of 3 in. by 2 in. rafters secured to a central ridge and given a slight fall towards the outer walls, an arrangement which obviated the use of fillets. Sawn boarding, $\frac{3}{4}$ in. thick, covered with two layers of "Ruberoid," formed the finish. This construction could be completed before the filling-in for the walls, and was expedited through the factory production of the various parts. Concrete posts were brought ready for erection, and the timber for the roof of each chalet was parcelled at works.

The infilling of the patent slabs set in cement mortar proved very rapid, and the organisation of the plastering on the site maintained a continuous series of operations leading to completion of all the chalet construction for 1,700 persons in three months, whilst the entire camp was completed and occupied in the short space of five months.

The problems of construction which, prior to the war, were developing in a normal way, were now disorganised. Timber shortage, the depression in the building industry and many other influences would affect evolution. "There are, however, opportunities for investigation and research and the rearrangement of our ideas," declared the lecturer, "in order to establish a basis of facts from which to embark on future endeavour. Architecture and planning may, in future, be much more a subject of facts than of opinions; objective design rather than spurious inspiration or confused tastes; reality as opposed to ascetic but insecure academic posture. If camps are to be built, our working population decentralised and provided with good homes and a protected countryside, let us apply architecture and sound construction. In all related matters we must give our message to the people in plain language; words that can be understood and which mean the same thing to all men and women. In that way only can we use our skill to the best advantage for the nation."

Hygienic Arrangement of Buildings.

The principal aspects of hygienic arrangements in camps must be divided into two categories :—

(a) Physical hygiene, by which was meant the placing of buildings in proper relation to light and air; sanitary public works, such as services, roads, paths and site drainage; ventilation and heating; and (b) mental hygiene, which dictated a design and finish in the arrangement which presented an attractive and educational artistic background of real psychological value.

Plan-forms, since the advent of architect-designed camps, were varied in character and revealed the æsthetic possibilities of the subject. Few architects had, as yet, enjoyed the opportunity of creating an actual scheme, but recently many able designs, the subject of careful study, had been published.

Courtyard motifs, open arrangement of chalets in echelon form or with spinal layouts, like Rogerson Hall, indicated a proper grasp of the hygienic problem. In all those instances, the repetition of monotonous rows of buildings, and incidental congestion, had been avoided. Orientation, both of the main buildings and sleeping quarters demanded a careful study to determine which rooms required maximum sunlight. Shade was a quality not to be despised in holiday camps, and it might be desirable to arrange some rooms as retreats from glare and heat.

Camps as a Civilising Influence.

"The experience now available in regard to this and other aspects of planned holidays," said the lecturer, "appears to emphasise the case for close investigation prior to future development. There is scope for the establishment of small camps inland and on those parts of the coast of Britain which have hitherto not been considered suitable because of the assumption that holiday camps should be near an existing seaside town or resort.

"Is it possible to achieve world harmony either under prevailing conditions or those which existed prior to the war? Surely it can never be possible through the medium of a comparatively few privileged persons, Government leaders, diplomats, students and tourists. It might be consummated by the peoples of different countries knowing and understanding one another.

"This, then, brings us to the climax of the camp problem. Through its successful expansion the peoples of our cities and towns may find a richer and fuller existence and by the promotion of what, for lack of a better term, I have called the International Holiday Camp, the peoples of different lands may join together in communal understanding to their lasting benefit. The possibility of such an ideal is brought nearer by the great development of air travel due to the war. Vast progress, similar to that which occurred in road transport during the last dreadful upheaval, appears to be indicated even at this early stage. What may be the progress during the next few years it is impossible to forecast, but that improvement will continue is certain. Upon aerial travel, expansion of sea voyaging and perhaps the building of the Channel tunnel may rest the foundation of a universal understanding far more comprehensive than has hitherto existed."

OBITUARY

Ben Carter.

In connection with the obituary notice of Mr. Ben Carter which we published last week, we are asked to state that he was not the hon. treasurer of the Builders' Benevolent Institution but the hon. auditor.

A friend sends us the following notes : Ben Carter died after a short illness at the age of 71. For many years he was governing director of Messrs. Stephens & Carter, Ltd., in the welfare of whose staff he took a keen interest. For six years he was Chairman of St. Monica's Hospital, Brondesbury Park, and he established the "Bun Penny" fund by which the hospital benefited by over £2,000. He was a member of the Devonshire Club and was well known and honoured in the Masonic world. The funeral took place at Kensal Green cemetery, where a company of about fifty was present to pay a final tribute of affection and esteem.

We regret to announce the deaths of Mr. George M. Eaton, F.R.I.B.A., and Mr. W. E. Horsfall. Notices will appear in our next issue.

MILITARY HOSPITAL, CLIVEDEN, TAPLOW, FOR CANADIAN RED CROSS.

The perspective reproduced above is of a military hospital with 600 beds which is being erected on Lord Astor's estate at Cliveden, near Taplow, for the Canadian Red Cross. In hut form, the hospital will be built of brick, and is expected to be completed in a few weeks' time. The architect is MR. ROBERT ATKINSON, F.R.I.B.A.

WAR-TIME BUILDING PRACTICE

By R. Cotterell Butler, A.R.I.B.A.

14.—SOCIAL SERVICE UNITS FOR EMERGENCY COMMUNITIES.

2.—GENERAL PLANNING CONSIDERATIONS.

THE successful planning of an emergency social service centre is bound to depend more than anything else upon the balance which is obtained between the facilities provided for the various social services under consideration. In the previous article of this series the general social requirements of emergency communities were discussed, and it was pointed out that three factors influenced the relative importance of the amenities necessary. These being :—

(*a*) The extent and nature of facilities already existing in the locality.

(*b*) The characteristics of the emergency community to be served.

(*c*) After-the-war requirements.

Although the extent of existing facilities is bound to vary widely, the connection which exists between the type of community to be provided for and the locality in which it may be expected to occur means that considerations adopted in view of the community concerned will usually allow for the nature of the locality, quite automatically. For example : normal evacuation communities, consisting of children and mothers, would presumably be accommodated in " safe " areas, and by virtue of its very nature any area housing an extensive industrial community would have to be considered as possessing a considerable target value to the enemy, no matter where situated.

With regard to after-the-war considerations, one would naturally hope that all emergency social service centres would automatically form the nuclei of post-war centres of real social worth. There appears to be little reason why this should not frequently be the case, but in some circumstances, certain factors peculiar to war-time conditions are bound to influence the suitability of the unit as a post-war centre.

If it were possible to design every war-time centre so that it were easily capable of expansion after the war, this would be highly satisfactory, but in attempting to develop the necessary flexibility, important emergency considerations must not be overlooked. Of greater importance than either of the two previous factors, considerations arising out of the nature of the community in question, play a fundamental part in influencing the selection of a suitable plan-form.

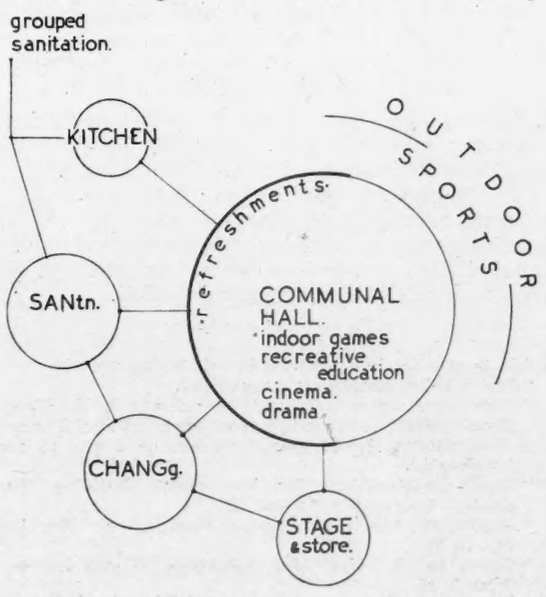


DIAGRAM 1.

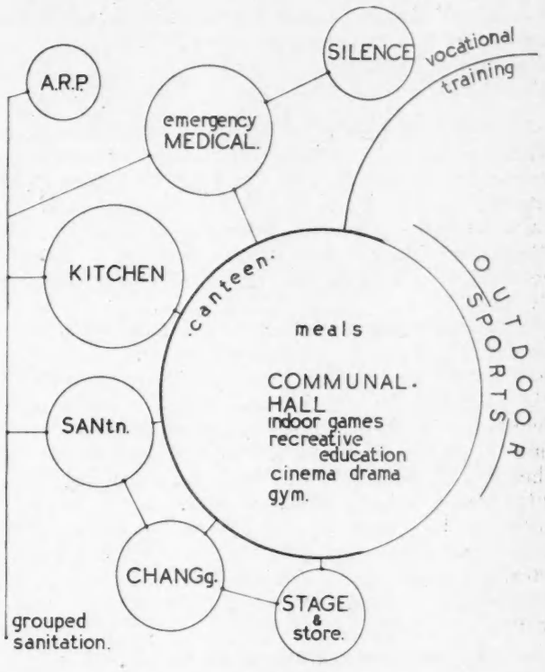


DIAGRAM 2.

At this stage of the war, emergency communities may be classified satisfactorily under four headings :

(1) Emergency industrial communities.

(2) Emergency business communities.

(3) General evacuee communities accommodated in billets.

(4) General evacuee communities accommodated in camps.

The relative importance of the various social services in connection with each classification may be gathered from the following brief notes :

EMERGENCY INDUSTRIAL COMMUNITIES.

Usually located in emergency industrial areas or normal industrial areas. Personnel : adult industrial operatives.

A.R.P. SERVICES.—Usually provided already in connection with the factory buildings.

MEDICAL SERVICES.—Where centres are small, existing local health services must usually be considered sufficient. Where extensive new developments are under consideration considerable advantage may be gained by including at least the emergency medical services in the social service group.

FOOD SUPPLY.—Where operatives are accommodated in billets, and the factory canteen provides a mid-day meal, food services in the social centre must usually be limited to light refreshments only. Where the project of the social service centre is under consideration at the same time as the factory, there are advantages in incorporating the canteen in the centre.

EDUCATION.—Recreational education facilities desirable and valuable.

Vocational training may often be arranged in connection with the works' centres.

RECREATION.—In connection with this type of community—without doubt the most important consideration.

EMERGENCY BUSINESS COMMUNITIES.

In many cases located in " safe " areas. General considerations much the same as industrial communities, except that where " safe " areas are under consideration, increased facilities are necessary in the centre to make up for fewer existing facilities.

Vocational training less important in this connection than in the case of industrial operatives.

Recreational education valuable.

Personnel: Adult office workers—both sexes.

EVACUEE COMMUNITIES IN BILLETS.

Usually located in " safe " or reasonably safe areas. Personnel: children (school, and family systems), expectant mothers, the blind, certain medical cases.

A.R.P. SERVICES.—Usually already provided by local authorities. Only satisfactorily included in centre, where radius of billeting area served by centre, is reasonably small.

MEDICAL SERVICES. — Extremely important, evacuation areas rarely have adequate facilities.

FOOD SUPPLY.—General catering usually unnecessary. This provided for by billets. Where possible great advantages in having it in centre, usually practicable where evacuees can form a catering staff themselves. Otherwise the return for a single meal per day in the centre is economically unsatisfactory.

EDUCATION. — General education services almost always inadequate for child evacuees, extremely satisfactorily incorporated in centre.

RECREATION.—Essential for all classes of billeted evacuee.

EVACUEE COMMUNITIES IN CAMPS.

LOCATION.—Invariably " safe " area.

PERSONNEL.—Children (school system).
Certain medical cases.
Defective persons generally.

In such districts local facilities are usually very limited, particularly in view of the type of evacuee under consideration.

All the social services outlined (March 29th) should therefore be provided with some measure of accommodation, with the possible exception of A.R.P. measures, which will depend entirely upon such factors as: current political policy, the nature of the war, and the location of hostilities. In view of the way in which the relative safety of any area is bound to vary during the course of the war, owing to many factors, every step which would increase the safety of an evacuation unit should, if economically possible, receive consideration.

The technician can only suggest these steps; whether they are economically possible or not must be decided elsewhere.

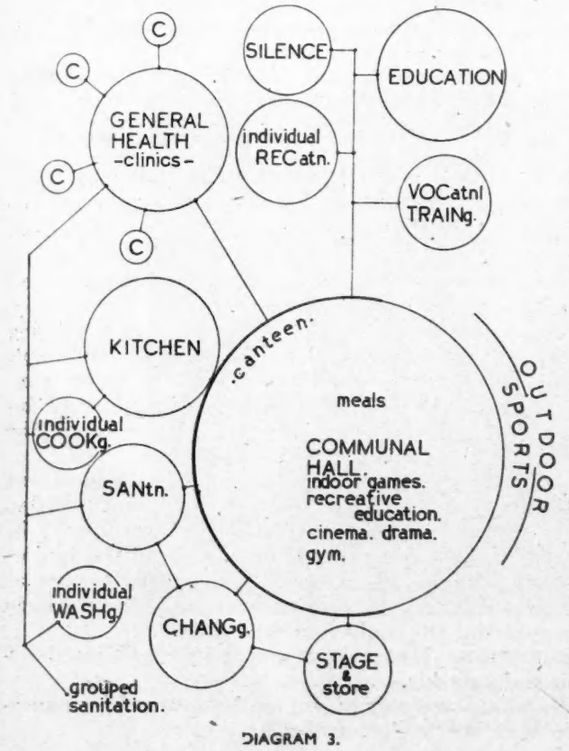


DIAGRAM 3.

SYNTHESIS.

So much, then, for the varying social service requirements of emergency communities. In theory, since maximum efficiency is only to be obtained by taking into consideration the relative importance of all these factors in every case, one is bound to expect—since localities and communities vary so much—comparable variations in the form of social centre required. However, to meet the needs of war-time conditions in a practical manner, as many common denominators as possible must be found, in order to obtain the economic advantages that are to be derived from an intelligent application of standardisation.

By aiming at maximum flexibility of design within the standardised framework adopted, one is able to arrive at a compromise between the theoretical requirements and those practicable under present conditions.

To put into practice this line of reasoning, three general types of emergency community centre are outlined below :—

The planning diagrams illustrated indicate the general relation of units to each other, the relative proportions of units in the three types of centre, and the main lines of circulation.

The optimum unit sizes and design arrangements to unite the elements structurally, can of course only be decided upon after the size of the community to be accommodated has been considered, together with the detail plan requirements of the service units, and structural and site considerations.

DIAGRAMS.

1. General recreational centre, suitable for emergency industrial areas already reasonably well served as regards normal health and A.R.P. services. Regular food services are not included, these being assumed to be provided by industrial organisation, and/or billets. Suitable for the requirements of industrial operatives, and office employees.

2. General centre for industrial areas where development is entirely of an emergency nature, and few facilities, if any, already exist. Suitable for the requirements of industrial operatives and office workers.

3. General centre for evacuees in " safe " areas where no facilities exist whatever. Generally speaking for communities accommodated in camp settlements.

Where billeted communities are under consideration, the general catering system may, of course, be reduced, either to canteen and mid-day meal, or canteen only.

Suitable for the requirements of children and the general evacuee classes previously described.

(To be continued.)

Subjects previously dealt with in this Series are :—
" The Field of Activity," October 13.
" Billeting Accommodation," November 3, 10, 17.
" Development of Materials and Constructional Systems as Substitutes for Timber," December 8 and 15 and January 12.
" Roof Construction for Emergency Building Purposes," February 9, 16 and 23.
" Black-out : The Importance of Ventilation," March 8, March 15.
" Social Service Units for Emergency Communities," March 29.
Copies of these issues may be obtained from the Publisher.

BUILDING LEGISLATION

THE NEED FOR COHERENCE.

In an article on "The Need for Coherence in Building Legislation and its Association with Building Education," contributed to the Journal of the Building Surveyors' Association, Mr. B. Price Davies (Hon. Member), F.R.I.B.A., F.S.I., writes:—

During the past twenty years we have obtained many new forms of building legislation and seen many changes in its older and more familiar forms. This is a healthy sign of interest and progression in the new building structures of our country.

It can almost be said that there has been too much progression during the past ten years, but to stem its tide might bring about stagnation, and this would not be good policy in a world of rapid changes. Many new kinds of building materials have made their appearance during these last two decades, and some of them are now established in universal use. This has often meant the "growing pains of experience before the materials have developed into safe forms of useful building construction. Other kinds have not been so fortunate, and, leaving behind them a trail of unsatisfactory construction, they have ceased to appear in the building markets. Labour has had to follow these changes, and here again men have to use new ideas and make new tools in order to apply these modern forms of building materials. Not only that, but they have to keep watch on their behaviour during the passing of time and the changes of seasons. In that way we find ourselves in the age-old game of "trial and error." And yet, if we progress, we must try, and we must make errors—but we must lessen our errors as much as possible.

To help us in this progression we now have modern building research—the new handmaid of practical experience—and the latter has ever been a stern if dilatory form of building research. With more scientific investigation, more building education is required in order to understand the former's findings; it is quite possible that the drift may become so strong in such a direction that it may react to loss on the side of practical experience. In fact, we already see a tendency to decry the findings of practical experience if modern building research has not found the scientific reasons for them.

We find ourselves, therefore, in this strong tide of building progression, and we find it liable to uncertain risings which are apt to sweep us off our feet. One of the several waves is that of building legislation, and if it was "harnessed" more effectually it would be productive of more good. Going a step farther, we might say that if it was better "harnessed" to practical experience, building research and building education, the combined power of progression would be enormous. It would be a tide which would find our building development in the forefront of the world's endeavours. We find our building legislation in a kind of sporadic fashion; it is scattered through numerous sets of laws, by-laws and regulations, and if ignorance of the entire existence of some of it is the lot of the building surveyor, what can be expected from the ordinary practitioner who has to apply it?

Take, for instance, the dimensions of habitable rooms: our recent model by-laws only give their minimum headroom. If we desire to know the classifications of floor areas, we have to consult a Housing Act and study the sizes of rooms from the standards of overcrowding. Here we find that the bedroom for a single adult should have a floor area of not less than 70 super feet, otherwise the room is overcrowded. It is by no means strange to find plans of houses shown in the building journals with bedrooms of a super area of something less than this; they are obviously meant for one adult, which, in the terms of the Housing Act, applies to a person over ten years of age! Nor has the local authority power to disapprove such plans under the provisions of the by-laws because its standards of room areas are inferior to those required for standards of prevention of overcrowding. The person is allowed to build the room and then to be told that it is overcrowded. This case is cited as only one of many like cases in order to exemplify the lack of coherence in our building legislation. Not only is our building legislation sporadic in its field, but it is sporadic in its time phases as well, and this is an important factor in increasing its lack of coherence.

With such little coherence in building legislation itself, what hope is there of any real coherence as between building legislation and building education? Without the knowledge of building legislation, how can it be properly applied? If it lacks coherence, how can it be transmuted into a fulness of knowledge?

It would appear that building legislation should come within the scope of a comprehensive building code, although such code may be in some form of cumulative development. The first part, for instance, might cover the simpler form of structures such as houses, small shops and small garages. These usually form the bulk of the country's building effort, to which the most common forms of building legislation apply. For building education this would form the elementary course of building legislation. The second part could embody larger types of structures such as commercial garages, village halls, churches, small schools, and other forms of structures which are usually found in a large village or a small town. This would form the advanced course for building education. The third part could embody all other classes of buildings, including large public buildings such as theatres, public halls, large schools, large commercial garages, large factories, and the like. In turn, this would form the final course for building education. With a classification like this, the assimilation and application of building legislation would be on surer ground and of surer progression.

Going a step farther, the complete revision of such a national code could be made at the end of definite periods of time, say, ten years. The revised code could be issued, say, in April, 1949, and become operative in April, 1950. Any pressing alterations or additions to it could be made in the form of addenda; these, again, could be with regular periods, and issued, say, in the January of each year, and become operative in the April of that year. Such a scheme of "time periods" would greatly facilitate the teaching of building legislation as well. Courses in the curriculum of schools could fall into line, and books could be produced in harmony with such an arrangement. With the haphazard method of the issue of building legislation now prevailing, the compilation of courses and books is like building on shifting sands.

We should not forget that an improvement in the machinery of building legislation would bring greater facility for its assimilation and use; by that means we would move forward to better buildings and in turn provide better conditions of living for the communities we serve.

I.A.A.S.

LONDON AND HOME COUNTIES' BRANCH LUNCHEON.

Mr. J. E. Swindlehurst, M.A.(Cantab.), (President of the I.A.A.S.), was the guest of honour at the annual luncheon of the London and Home Counties' Branch of the Incorporated Association of Architects and Surveyors, held at the Connaught Rooms on Friday last. Mr. Keith Preston, A.I.A.A., F.R.S.A., was in the chair.

Mr. Swindlehurst, in toasting the Branch, said that the lives of so many members of the architectural and surveying professions were darkened by the dread paralysis of enforced inactivity. The problem was grave and we must face the fact that there was no easy solution. "But we are not resigned to the belief that there is no solution at all," he added: "It is the belief of most responsible people connected with building, and of many financial and other authorities outside it, that the Government has not recognised the indispensability of building to the well-being of the community or its place in the national economy. Our task is to convince them that they have made a grave error of judgment. We want to tell them that we do appreciate their difficulties, we do understand the motives that have led them to place such heavy restrictions on building. They want to win the War, and so do we; but as Sir Alfred Hurst so pertinently remarked in his recent lecture to us, winning the war has had very different meanings at different times. A war won at the expense of our constructive facilities, a war followed by a chaotic peace, could hardly be accounted a victory. Our object is to destroy evil; but we must take care that we do not destroy our own good in the process.

"The crux of the problem is, of course, probably finance. The theory is that all our energies must be devoted to producing exportable commodities that will help to pay for the food and war materials that we have to import. Now I am no economist, but it is pretty clear that even if the building industry were to be closed down entirely the money that would have been expended on building would not all be available to the Government. Provision has to be made for men displaced, and there is already loss of revenue from income tax and indirect taxation. Building materials, with the tremendous exception of timber, are largely home-produced, and although timber presents an enormous problem, I do not believe that by itself it would be an insuperable obstacle to the resumption of building. It has been put forward that if sufficient building were permitted to maintain the industry as an entity, even in a modified form, it would make little difference to the national revenue—in short, the Government would get the money, but for part of it they would have to wait a little longer.

"If this view is correct there can be little justification for closing down the industry on financial grounds. The Government knows its business better than we; but without disrespect, we can claim to understand the building industry better than they. It is our duty to warn them that the consequences of the present policy must be the breakdown of a system that has taken years to build up."

He had so far said very little about architects and surveyors specifically, but these formed part of the building industry, and the future of many depended upon the fate of that industry. Unilateral action, even unilateral representation, was doomed to failure. What was needed was a collective point of view, and a policy based on collective interests. As a step towards that end the I.A.A.S. were proposing to hold a public discussion—some time in May—at which representatives of the various sides of building would be able to make concrete suggestions for maintaining the industry during war time.

A vote of thanks to the speaker on behalf of those present were proposed by Mr. Laurence M. Gotch, F.R.I.B.A.

Among the company were Sir Robert Tasker, M.P., Sir Alfred Hurst, K.B.E., Major Athoe, Mr. W. Salter, and Mr. Beach (Hon. Sec.).

A Catalogue of Fine and Applied Art.

Messrs. B. T. Batsford, Ltd., of 15, North Audley-street, London, W.1, have issued a "Catalogue of Old, Rare and Modern Books Relating to Fine and Applied Art, together with choice Original Drawings, Oil Paintings, Colour-Plate Books, and other items of particular interest to Libraries, Museums and Collectors." The catalogue contains no fewer than 1,323 entries and is illustrated by 16 pages of excellent half-tone reproductions.

PUBLIC HOUSE AND FLATS, ALLITSEN ROAD, N.W.

MR. LOUIS DE SOISSONS, F.R.I.B.A, S.A.D.G., ARCHITECT

THE REAR ELEVATION.

SCHEME. — In addition to the normal difficulties encountered in rebuilding a public-house, whilst still retaining the licence and use of part of the premises, was added that of planning a manager's flat above, on the first floor, with working-class flats of smaller area above this, thus greatly complicating the drainage, services and construction. As will be seen, the site is very restricted, with little space to spare for rebuilding work.

ACCOMMODATION.—The total accommodation comprises public-house, manager's flat, one lock-up shop, two shops with living accommodation over, and 15 flats each with living-room, kitchen, bath and w.c., and either one, two or three bedrooms as shown on the plan.

CONSTRUCTION. — 13½-in. brick walls, solid construction, with internal reinforced concrete stanchions and floors. Internal partitions are in breeze. There is a timber roof, tiled with pantiles. Windows have wood-sashed frames. The ground-floor shopfronts are in teak, with pilasters between faced in "Quarzite," with granite base and cast stone caps and cornice above.

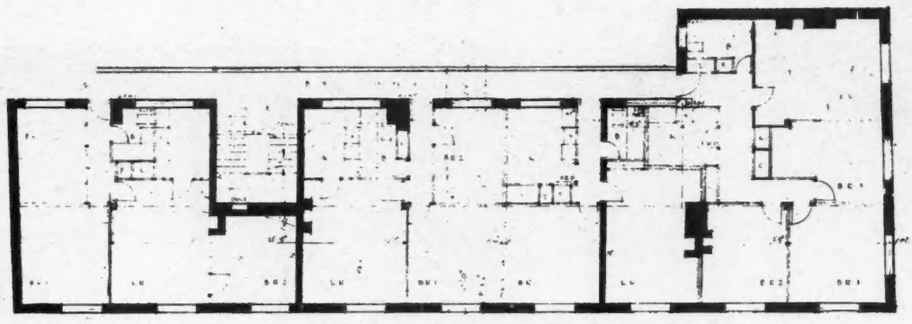
Each flat is "all-electric," the coppers having "Leighway" syphon arrangements to baths. Sinks have a cold tap and electric water heater above. Each kitchen has combined larder and dresser fitting, plate rack and teak draining board to sink. The kitchens are tiled all round to a height of 4 ft. 6 in. Bathrooms are also tiled to 4 ft. 6 in. height, with lavatory basins, square-panelled baths and w.c.'s. There is a coal and meter cupboard; "Interoven" stoves have been fitted in the living-rooms, which have also tiled cills and fitted pelmet boards.

All rooms have deal floors, except for entrance lobbies and bathrooms and kitchens, which are in grano. All internal joinery is painted. Staircases are of concrete, with grano finish and rustic fletton walls. Balustrade is wrought-iron with turned brass finials. There is a small courtyard at the rear, and pram sheds are provided for the use of the tenants.

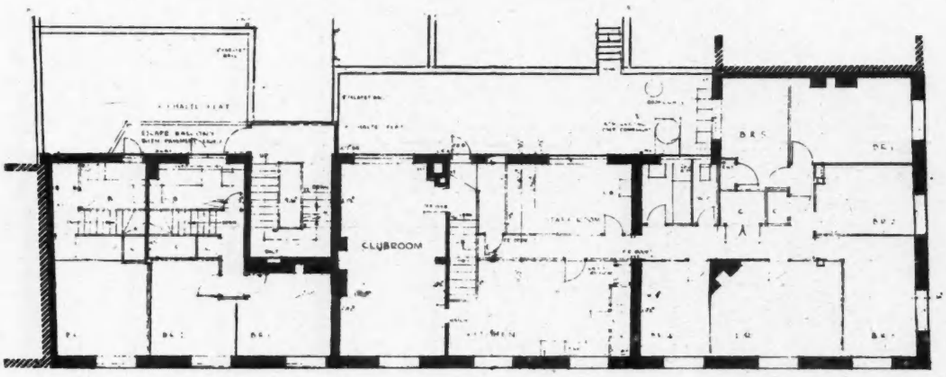
The public-house ("The Crown") consists of saloon, public and private bars, which are partly panelled in oak, with oak doors, fireplaces, etc. The manager's flat is well fitted out, the kitchen being tiled to ceiling height with normal fittings, etc. The quantity surveyor was Mr. S. A. Paine, F.S.I., and the builders were Messrs. Simms, Sons and Cooke, Ltd., of Nottingham. Sub-contractors engaged were: Heating, James Combe and Son, Ltd.; reinforced concrete work, The Indented Bar and Concrete Engineering Co.; electrical work, G. W. Franklin and Sons; bricks and pantiles, Finnis and Ruault, Ltd.; plastering, Co-Plastering, Ltd.; plumbing, George Simpson and Co., Ltd.; asphalt, General Asphalte Co., Ltd.; "Stonite" fireplaces, George Jennings, Ltd.; sanitary fittings, John Bolding and Sons, Ltd.; bath panels, A. Robertson; "Interoven" stoves, Interoven Stove Co.; wall tiling, Carter and Kernahan, Ltd.; granite, William Griffiths and Co., Ltd.; wrot ironwork, T. W. Palmer and Co.; tarpaving, Fitzpatrick and Son, Ltd.; cast stone, W. C. Richardson; iron stair, etc., Haywards, Ltd.; "Quarzite," John Stubbs, Ltd.; ironmongery (flats), Nettlefold, Ltd.; hoist, Aldous and Campbell, Ltd.; gas supplies, Gas, Light and Coke Co.; ironmongery (p.-h.), Carter and Aynsley, Ltd.; lettering, Eric Munday; metal windows to balcony screen, etc., William Smith, Ltd.; p.-h. fireplaces, Bratt, Colbran, Ltd.; decorations, p.-h., A. Arnold; rainwater heads, Walter Macfarlane and Co., Ltd.

PUBLIC HOUSE AND FLATS, ALLITSEN ROAD, N.W.

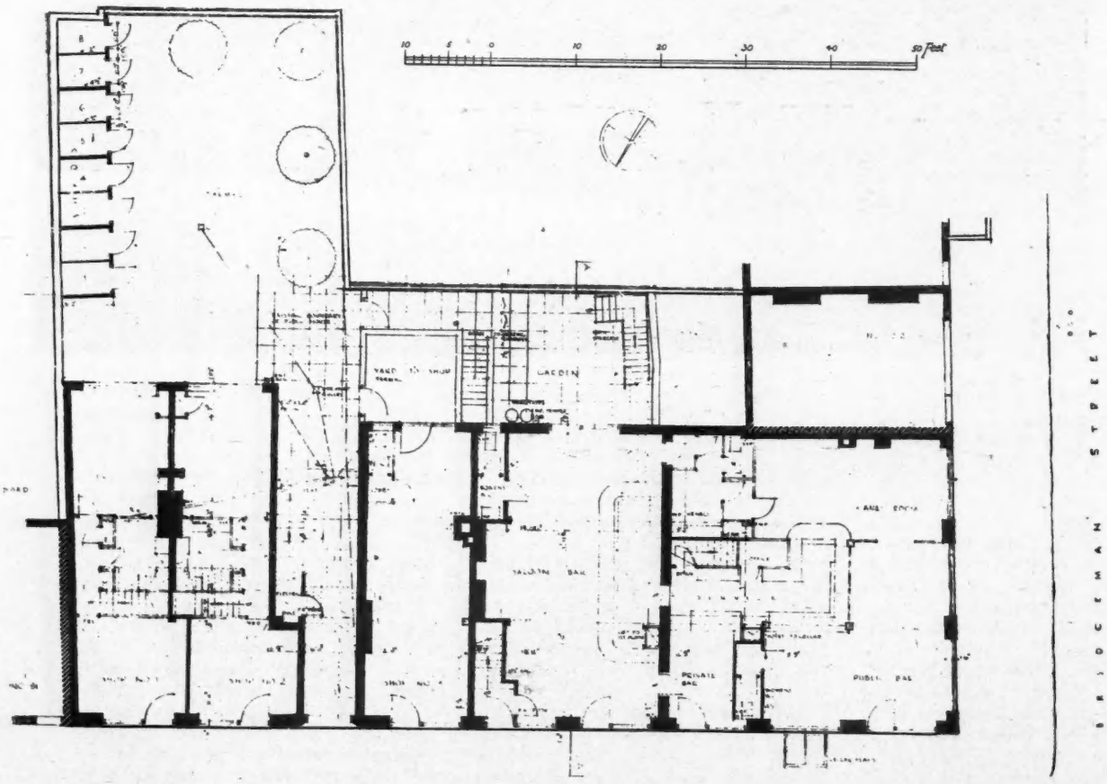
MR. LOUIS DE SOISSONS, F.R.I.B.A., S.A.D.G., ARCHITECT.



SECOND- THIRD- AND FOURTH-FLOOR PLANS.



FIRST-FLOOR PLAN.



GROUND-FLOOR PLAN.

PUBLIC HOUSE AND FLATS, ALLITSEN ROAD, N.W.

MR. LOUIS DE SOISSONS, F.R.I.B.A., S.A.D.G., ARCHITECT.

ELEVATION TO THE HIGH STREET.

OFFICES FOR THE "BUCKS FREE PRESS," HIGH WYCOMBE.

MESSRS. BROCKLEHURST AND COOPER, F. AND A.R.I.B.A., ARCHITECTS.

Erected on the site of some old buildings recently demolished, this new work embodies on its main frontage two lock-up shops with, on the right-hand side, a dignified entrance to the "Bucks Free Press," which has offices on the ground and upper floors. The materials used on the elevation are cream-coloured bricks with a cream mortar joint and Bath stone dressings.

OFFICES FOR THE "BUCKS FREE PRESS," HIGH WYCOMBE.

MESSRS. BROCKLEHURST AND COOPER, F. AND A.R.I.B.A., ARCHITECTS.

THE "Bucks Free Press" building was built to take the place of old buildings recently demolished. On the previous page is shown the elevation to the High-street of the newspaper entrance and lock-up shops with office accommodation over. The section illustrated forms part of a considerable extension to the newspaper's premises, which occupy a large area at the rear. The extensions comprised additions to the linotype room, new rotary press room, and editorial wing.

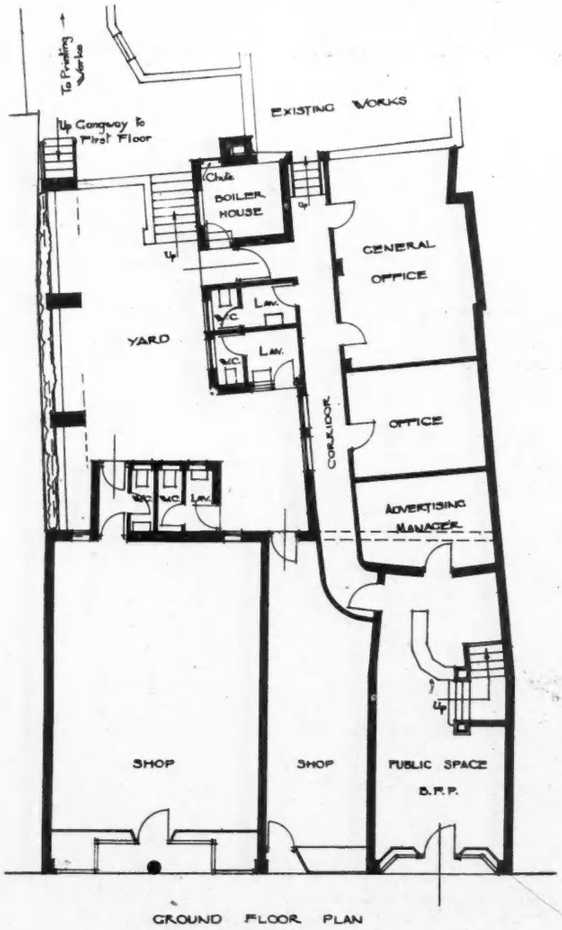
It was desired to provide a building, modern in feeling, and with an imposing entrance to the newspaper house, the difficulty being that a newspaper has little to display. To secure an imposing elevation was quite a problem for the architects, but one which has successfully been solved.

Bath stone was used as dressings to the front, the bricks being cream-coloured Hunzikers, with a cream mortar joint. The lettering and treatment generally to the newspaper front is in cream, royal blue and gold. The aspect being south, the façade has a very bright and cheerful appearance.

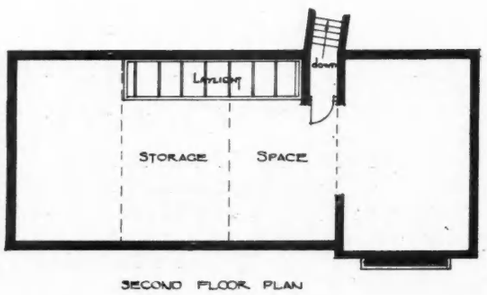
The general contractors were Messrs. Geo. Biggs and Sons, of Great Kingshill, High Wycombe, Bucks; and sub-contractors were: Heating engineers, C. H. Hitchcock; mason, E. Harris; facing bricks, Hunziker, Ltd.; metal windows, Williams and Williams, Ltd.; tiling, Colthurst, Symons and Co., Ltd.; electric light installation, Wycombe (Borough) Electric Light and Power Co., Ltd.; steelwork, Croggon and Co., Ltd.; sanitary fittings, Spicer and Son, Ltd.; furniture, Goodearl Bros.; carpeting, etc., Wm. McIlroy, Ltd.; shop fronts, S. C. Williams and Co., Ltd.; oak staircase, counter and lettering, J. G. Cherrington; oak flooring, Hollis Bros.; and asphalt flats, Engert and Rolfe, Ltd.

THE NEWSPAPER ENTRANCE HALL AND STAIRCASE

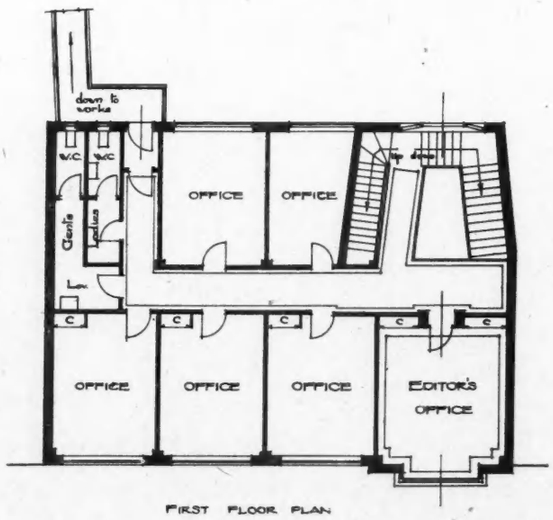
'REBUILT OFFICE BUILDING, 'THE BUCKS FREE PRESS' HIGH STREET, HIGH WYCOMBE.



GROUND FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN

PUBLIC AIR RAID SHELTERS

DUAL PURPOSE STRUCTURES

A PAPER was read at a general meeting of the Air Raid Protection Institute on April 9, by MR. SYDNEY CLOUGH, F.R.I.B.A., A.R.C.A. (Arch.) Lond., F.A.R.P.I., who dealt with the subject of "Dual Purpose Structures."

The title of the paper, "Dual Purpose Structures," in this case meant (commenced the lecturer) air raid shelters that had a real use in peace-time and preferably a financially sound use, especially where public funds were involved. If such expenditure, whilst providing air raid shelter for the civilian population, could at the same time be wholly or largely used to provide a peace-time use, then the economic argument in favour of providing for such peace-time service was unanswerable. "I will go further," he added, "and assert that it would be an economy to the country at large, whether we consider private individuals, employers of labour, borough councils, etc., to spend in the first instance a little more on their shelter programme if by so doing they can provide a structure which will serve a useful purpose in time of peace." There could be no dispute that the economic factor he had outlined applied to shelters, whether the shelter were small or large, whether it were a private shelter, one for a factory or a public shelter.

Classification of Shelters.

It was not easy in all instances to suggest to what other use an air raid shelter could be put. At the moment, those responsible for the provision of air raid shelters were rightly concerned with their use primarily as air raid shelters, and the first broad classification was a structure erected now for such service during the war, but so designed and constructed that when the war was over it could be converted to a permanent and necessary peace-time use, which would render it impossible to reconvert the structure to a shelter except at great expense or major disorganisation, the people building that type of shelter being satisfied to accept the fact that either there would be no future need for air raid shelters or that when the time came to provide shelters again, they would build new air raid shelters.

The second classification of a dual purpose structure was one that, while being built now as an efficient air raid shelter, might be converted to a prearranged peace-time use or be absorbed as part of a larger scheme for peace-time use, but which would retain sufficient of its air raid shelter features to enable it to be used again for that purpose should the necessity arise.

The lecturer then proceeded to detail several types of shelter coming into his first category. Coming to the second class, he continued, where an air raid shelter in peace-time could be converted or incorporated in a structure with its peace-time use and which might again be serviceable for shelter purposes, we could start with a number of instances where private individuals, with ground to spare, had built themselves surface shelters designed with an eye to future use as workshops, extra garage, tool sheds, etc., in some cases incorporated as an extra room attached to the main building of the house. Here again, on a modest scale, the expenditure involved was to a large extent useful and therefore economic expenditure. It was a debatable point with some of them whether, in view of the extra rating that would be put upon them in peace-time, the economy was as useful as it at present appeared to be. All those small buildings were capable of having their internal fittings cleared out at short notice if their use as an air raid shelter should again be required.

Other structures described were a bomb-proof structure being used for housing the records and addressograph machines of a mailing department [a building illustrated in *The Builder* for December 29 last.—ED.], and a shelter for a public authority for use as a strongroom.

Public Shelters and Alternative Uses.

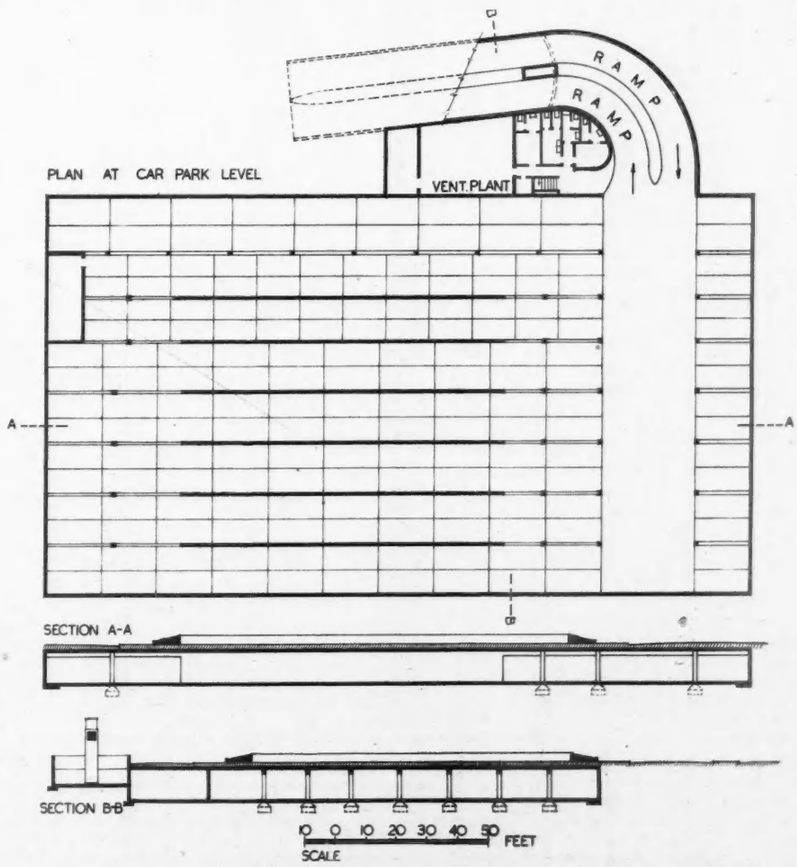
"Turning from private shelters to the larger and public ones, the peace-time use will, I venture to say, upon examination prove to be very limited. I have carried out a good deal of investigation into this matter and, except where a public body or borough council have got an isolated and particular peace-time use for their shelter, I have been inevitably forced to the conclusion that perhaps the most economical use that can be made of public shelters in peace-time is for car parking where such a need exists. This is particularly so in London and the larger cities of this country, where the sites available for the construction of public shelters are situated in the natural centres of public movement and congregation, where the demand for car parking is naturally acute.

"Thus you will appreciate we have two demands, the one for shelters for large numbers of the public in war-time, the other for the parking of large numbers of cars in peace-time. The peace-time use for the parking of cars will not only be one for which the demand will be sustained, but must be a progressive one, and I venture to predict that air raid shelters, properly constructed for the public in such areas, will be serviceable again in the future, should they be required. Moreover, where they are built under open spaces, usually the natural and proper site, extra overhead protection can readily be added.

"If a really competently designed shelter could only be made to serve as an efficient car park, we have obviously got a high degree of economy in combining the two demands in one structure. Hitherto, car parking *qua* car parking has not been possible as a financially sound undertaking because, if cars are to be free to enter and leave the park at will, no matter where they are stationed, then from 40 per cent. to 55 per cent. of the area has to be devoted to gangways and manœuvring space. Thus the number of cars actually parked will not sustain the capital invested in a central area unless a prohibitive charge is made for parking. On the other hand, if cars are to be driven freely in and out of a structure, very wide spacing of supports and large open floor areas in the building are essential, but if the structure is to be used as an air raid shelter, we get the contradictory requirement of the division of these large floor areas into cells or sections limiting the number of persons in any one compartment. Thus the two demands so urgently needed in the one building are at first sight incompatible."

He had investigated many systems of mechanical parking, and finally was placed in contact with a group of technicians who had designed and perfected a simple, very efficient and comparatively inexpensive mechanical system of parking. With the designers of the car parking system it was found possible to evolve a plan which permitted of the closest packing of the cars, preserving complete mobility of every car, approximately doubling the capacity and at the same time allowing of division walls being built throughout the building as close as 7 ft. 6 in. apart. Several boroughs were realising the need for more public shelters, and at Kingston-upon-Thames, Cardiff and Finsbury the corporations were building such portions of their future mechanised car park as they required for present shelter purposes. In every case practically the whole of the work now being built would be retained in the permanent structure.

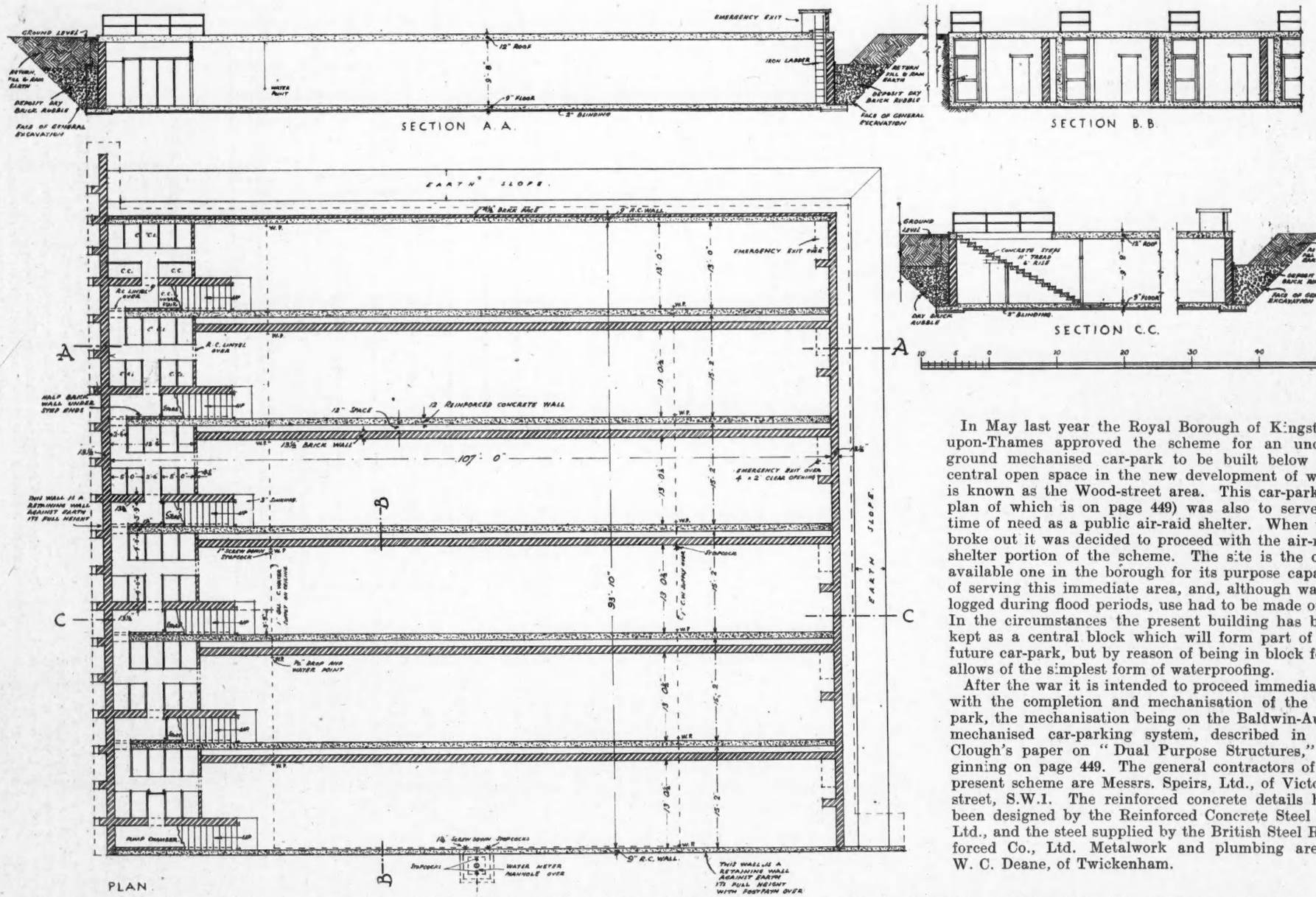
(*Continued on page* 451.)



SCHEME FOR CAR PARK AND AIR RAID SHELTER, KINGSTON-ON-THAMES.

MR. SYDNEY CLOUGH, F.R.I.B.A., ARCHITECT

Only the Air Raid Shelter, whose position is indicated by the spine walls in the centre of the above plan, is at present being built. Further details and a plan of the Shelter are on the next page.



In May last year the Royal Borough of Kingston-upon-Thames approved the scheme for an underground mechanised car-park to be built below the central open space in the new development of what is known as the Wood-street area. This car-park (a plan of which is on page 449) was also to serve in time of need as a public air-raid shelter. When war broke out it was decided to proceed with the air-raid shelter portion of the scheme. The site is the only available one in the borough for its purpose capable of serving this immediate area, and, although waterlogged during flood periods, use had to be made of it. In the circumstances the present building has been kept as a central block which will form part of the future car-park, but by reason of being in block form allows of the simplest form of waterproofing.

After the war it is intended to proceed immediately with the completion and mechanisation of the car-park, the mechanisation being on the Baldwin-Auger mechanised car-parking system, described in Mr. Clough's paper on "Dual Purpose Structures," beginning on page 449. The general contractors of the present scheme are Messrs. Speirs, Ltd., of Victoria-street, S.W.1. The reinforced concrete details have been designed by the Reinforced Concrete Steel Co., Ltd., and the steel supplied by the British Steel Reinforced Co., Ltd. Metalwork and plumbing are by W. C. Deane, of Twickenham.

SCHEME FOR A CAR PARK AND AIR RAID SHELTER, KINGSTON-ON-THAMES: PART AT PRESENT DEVELOPED AS AIR RAID SHELTER.

MR. SYDNEY CLOUGH, F.R.I.B.A., ARCHITECT, WITH MESSRS. W. W. BALDWIN AND ASSOCIATES, MR. G. L. PALING, A.M.INST.C.E., BOROUGH SURVEYOR.

(*Continued from page* 449.)

The main features of the parking system which made possible the combined air raid shelter/car park were as follows :—

" First the cars are parked a few inches apart, end to end and side by side, in units generally two cars wide and ten long, *i.e.*, 20 car spaces per bay. These bays, each about 15 ft. wide, are side by side, so that in a park of 200 car spaces there would be ten bays separated by the structural columns or dividing walls. At one end, at right angles to the bays, is a ' through-way ' leading to the down and up ramps, and this single road serves as many bays as required. The other end of the bays is usually closed by a wall. The car is driven on to the car space immediately next to the through-way and there is taken over by the mechanism, which is a simple type of shuttle movement. This moves the cars longitudinally in the bay and transversely at each end, and is reversible in its movements. The cars are moved without recourse to the use of their wheels or their engine. In other words, they are dealt with as though they were large boxes without wheels.

" Each bay is independent of the other bays in its operation, and cars can be accepted or delivered simultaneously in all bays. When delivery of a car is required, a button is pressed and an electrical selector gear puts the mechanism into operation. This delivers the car from its station, whatever its position, by the shortest route to the through-way, ready to drive away. The depth occupied by the mechanism is only 8 in., so it does not encroach materially on head-room.

" In its application to air raid shelters, the points of value to the planner are that, while providing up to double the parking capacity of ordinary methods, and thereby incidentally doubling the income, its gross cost is only 15 per cent. to 20 per cent. extra on the cost of the structure. Against this is the saving in construction over a building with wide spans as, by this system, the supporting columns or dividing walls, as the case may be, need be only 7 ft. 6 in. apart, eliminating heavy beam work altogether. This is especially valuable where the structure is under ground with any load overhead. In the buildings at Kingston, Cardiff and Finsbury, the dividing walls have been placed at 15 ft. apart and approved by the Home Office."

BOOK REVIEWS

The Seventeenth Volume of the Wren Society, 1940. A. T. Bolton and H. D. Hendrie, Editors. (Oxford University Press. 1940.) To Subscribers only, price £1 1s.

The Wren Society have unremittingly and steadfastly turned out their sumptuous volumes of reproductions and transcriptions yearly since 1924, and in their latest or seventeenth volume for this year they still hope, in spite of everything, to complete the anticipated score by the scheduled year, 1943. One wonders how the enormous work of sifting, selecting, describing and superintending and titling the illustrations is accomplished in twelve fugitive months. In the earlier stages each volume dealt with a specific building; latterly minor works have perforce been aggregated under collective headings, and the present instalment, purporting to be supplementary to Volume XII (1935), contains various productions not only by Wren, but also by some of his successors—Vanbrugh, the two Talmans, Gibbs, Archer and Dickinson. The editors evidently found the buildings so difficult to enumerate that they omitted to do so altogether, and it is exceptionally hard to analyse its contents; the Index list to documents is obscure, and does not obviously tally with the text headings, while the 150-or-so plate figures have no summary list. The work done at Chatsworth is most prominent.

More important to most readers, however, though unhappily reduced on account of its small bulk to an appendix, is a section on three works of Wren, two of them houses—Fawley Court, Henley, and Winslow Hall, Bucks. The tendency to ascribe to Wren almost every similar work of his time is notorious; the ability to distinguish the authentic article, or to find reliable guidance to it, is less common; the list in Weaver's little book (1923) was useful as far as it went. But these houses are stressed as genuine domestic works of the master, together with Marlborough House, illustrated earlier; the measured drawings and photographs will be of great value to students. The library over the cloister at Lincoln is shown in photographs with the same assurance of authenticity. These buildings are particularised in the Contents, which otherwise gives little real clue to the volume's treasures. One is glad to read that the last volume will have " the much-needed Indices to the whole set "; one hopes that in those the names of buildings will be given prominence, and that a chronological list improving on Weaver's will be added. Indeed, if a union index could be formed of illustrations and reliable descriptions appearing in other works, such as the Royal Commission on Historical Monuments' careful Inventories, it would be an even greater boon.

H. V. Molesworth Roberts.

The Law Relating to Garages and Car Parks. By Douglas Potter, M.A., Barrister-at-Law, with a Foreword by the Rt. Hon. Lord Wright. (London : Butterworth and Co. (Publishers), Ltd.) Price 15s.

This book sets out for those who are concerned with motor garages and car parks the law relating to these matters. It attempts a complete cross-section of the English law wherever that law involves garages or car parks. Included among the subjects dealt with are contracts of bailment, contracts for repairs, hire-purchase and hiring agreements, insurance, the duties of garage proprietors to persons entering on to their premises, the law relating to innkeepers who garage cars or have car parks, sales of cars, accessories and petrol, liabilities for nuisance, the law of landlord and tenant, including the effect of the Landlord and Tenant Act, 1927, rates, bankruptcy, trade licences, the Factories Act, 1937, Workmen's Compensation and National insurance.

In the text the cases cited are in the main relegated to footnotes and the index is full and carefully compiled. In addition to a Table of Statutes and a Table of Cases there is also a Table of Statutory Rules and Orders and Appendices containing a form of garage ticket and the relevant Statutory Rules and Orders relating to Factories. W. S.

The Essentials of Reinforced Concrete Design. By R. F. B. Grundy, B.Sc., A.M.Inst.C.E. (London : Chapman and Hall.) Price 10s. 6d. net.

Since so far the present war is, as has truly been said, an engineer's war, the design of reinforced concrete structures achieves special importance at the present time. Mr. Grundy's admirable book meets the requirements of those engaged in the design of the simpler types of reinforced concrete structures who wish to keep abreast with the codes and regulations in common use. In the book theory and practice in design have been carefully balanced, and a special feature has been made of discussing the application of each theory in relation to those codes and regulations; thus, the essential features of regulations (which are the old 1915 " Reinforced Concrete Regulations of the London County Council "; the " Code of Practice of the Reinforced Concrete Structures Committee of the Building Research Board," published in 1934; and the new L.C.C. By-laws and Memorandums of 1937 and 1938) have been tabulated in comparative form. This feature renders the book extremely valuable to students as well as to practitioners, since the conditions within which design must be formulated are ready to hand.

Though published before the issue by the Building Industries' National Council of its National Code of Practice for the use of reinforced concrete in construction of buildings, this book yet remains fully up to date in that the National Code does not differ from the technical requirements of the London County Council; it may therefore safely be recommended as a manual whose inherent virtues are reinforced by good layout and printing.

LAW REPORT

BUILDER'S SUCCESS IN INCOME TAX TEST CASE.

House of Lords.

Before the Lord Chancellor and Lords Maugham, Russell of Killowen, Wright and Romer.

Hughes (Inspector of Taxes) v. B. G. Utting & Co., Ltd.

This test case, which raised an important question under the Income Tax Acts to builders engaged in the development of building estates, came before the House on the appeal of the Crown from the judgment of the Court of Appeal.

The respondents, Messrs. B. G. Utting & Co., Ltd., of 80, St. Mildred's-road, S.E., who carry on the business of builders, contractors and developers of building estates, owned two estates, one at Norbury and another at Hither Green.

In the course of developing these estates they made roads, laid down sewers and drains, and built houses on the land. In some cases the company sold land with the houses erected thereon for cash, the purchase price being brought into the company's accounts as a trading receipt, and the cost of the land and the houses being set off against it as a trading expense. In other cases the company disposed of houses by granting 99 year leases in consideration of a cash payment and subject to a yearly ground rent of either £9 15s. or £10 10s. In those cases the cash payments were brought into the company's accounts as a trading receipt and the ground rents were brought into the accounts at a figure assumed to represent its cost, and the cost of the land and buildings was debited as a trading expense.

During the period from July 1, 1935, to December 31, 1936, the company disposed by way of freehold sales in about 20 cases, and granted leases for 99-years subject to ground rents in respect of nine houses. The company had not sold any ground rents, but had retained their reversionary estate in those houses in respect of which the ground rents were payable.

The Income Tax Commissioners, on the appeal of the company from their assessment to tax, held that where houses had been disposed of by way of 99-year leases at ground rents, completed sales in the course of the company's trade had been effected, and that the proceeds of those sales must be brought into the company's trading accounts. The correct method of dealing with those transactions in the company's accounts was to bring in as receipts from sales the amount of the premiums plus the realisable value of the ground rents at the date of the transactions.

From this result the company appealed to Mr. Justice Macnaghten, in the King's Bench Division, who upheld the decision of the Commissioners, holding that the ground rents being readily saleable must be brought into the company's trading account at their realisable market value.

The company then successfully appealed from that decision to the Court of Appeal, that Court holding that the ground rents should be brought into the company's trading at cost or market value, whichever was the less. The Court further held that the premiums were properly chargeable to tax under Schedule D.

From the judgment of the Court of Appeal the Crown now appealed to the House of Lords, which upheld the judgment of the Court of Appeal, the Lord Chancellor saying, in the course of his judgment, that he could see no reason or principle which compelled the company to pay tax on the capitalised value of the rents which they had reserved.

The Attorney-General (Sir Donald Somervell, K.C.), Mr. J. H. Stamp and Mr. R. Hills appeared for the Crown; and Mr. R. Needham, K.C., and Mr. J. S. Scrimgeour for the respondent company.

DESIGN OF AIR RAID SHELTERS

After six months or more of intense activity in the provision of air raid shelters it is possible to design shelters which will provide at minimum cost the degree of protection which conforms to the Revised Code of the Ministry of Home Security for shelters in "specified" areas. Thirty such designs are given in the book* under notice.

Complete dimensioned designs are given for 12 types of shelters for 50 persons in concrete, brick, steel, and timber with earth cover, and there are six designs in concrete and brick for wardens' posts and other smaller shelters for five to 24 persons. In each case a full list of quantities is given, so that the relative cost of the different types can be readily ascertained in any district according to current prices and the availability of different materials. The designs include splinter-proof and blast-proof surface, partly sunk and fully sunk shelters, so that a design can be selected to suit wet or dry sites.

Seven designs are given for strengthening basements of different sizes with steel, timber, and adjustable steel props, in accordance with Home Office requirements. Where no suitable site is available outside a non-basement building, space can be saved by providing a shelter beneath the building, and an interesting design shows a shelter of this type constructed under the floor of a London factory.

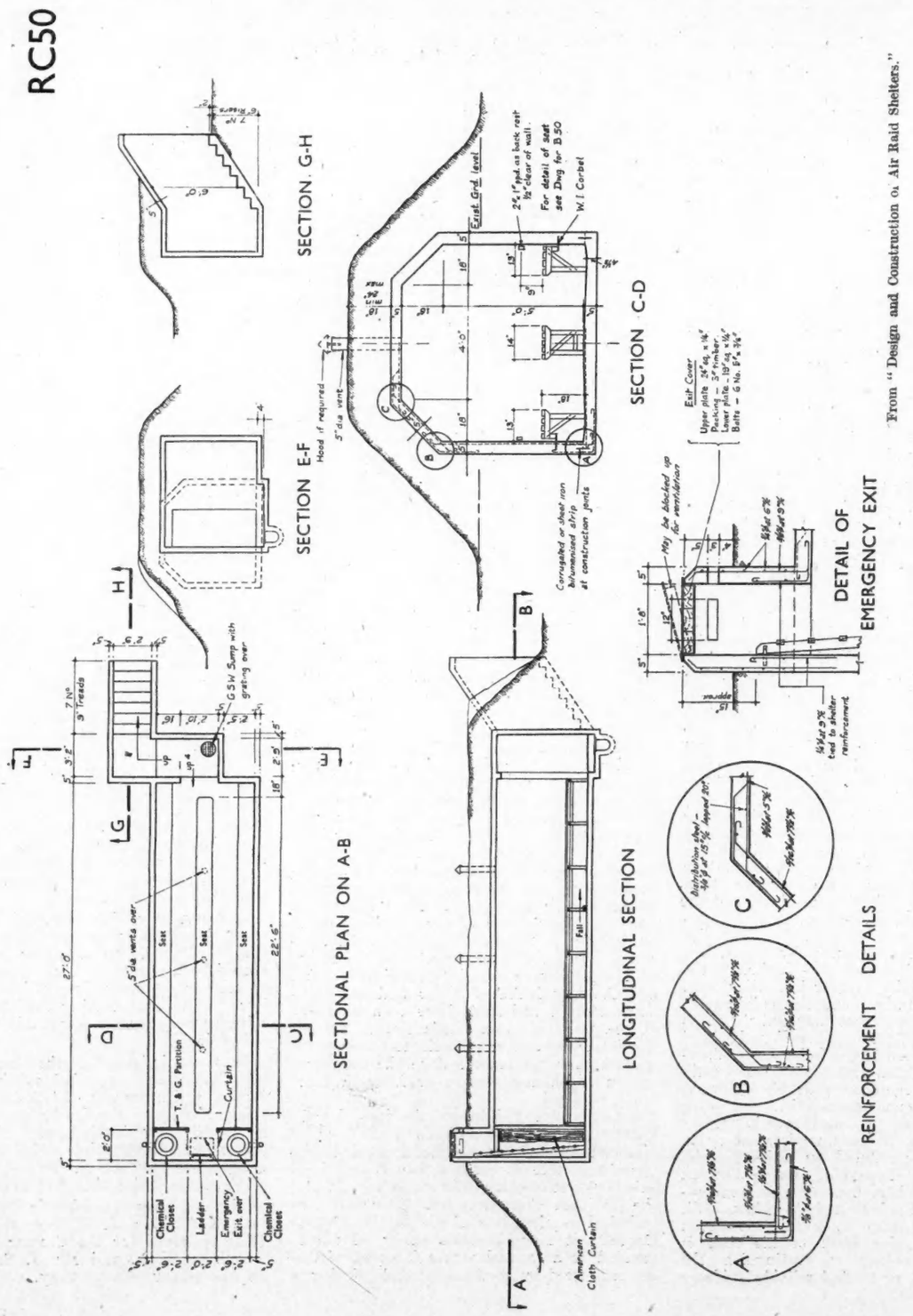
Although protection against gas is not now considered so important as in the early days of the war, the author gives full details of methods of gas-proofing the shelters.

Another section gives designs for bomb-proof shelters; these are in accordance with current practice, but, as the author points out, the cost of bomb-proof protection is very high.

The use of sandbags, plain and reinforced concrete, pre-cast concrete blocks, and other types of revetment is dealt with, and the relative costs are given; it appears that sandbagging is one of the most expensive as well as the most unsatisfactory means of providing side protection against splinters and blast. A useful feature of this section is a working drawing of a cheap and practical method of protecting pavement lights.

The last section, dealing with tunnel shel-

* "Design and Construction of Air Raid Shelters." By Donovan H. Lee, B.Sc., M.Inst.C.E. (London: Concrete Publications, Ltd.) Price 8s. 6d. net.



From "Design and Construction of Air Raid Shelters."

FIG. 1.—DESIGN FOR REINFORCED CONCRETE SHELTER FOR FIFTY PERSONS.

ters, is of great interest, and includes illustrations and descriptions of the extensive tunnel shelter schemes completed by the Borough of Stockport and by the Austin Motor Company. It is shown that, where the conditions are suitable, tunnels have been built to give bomb-proof protection at about the same cost as the more usual splinter-proof and blast-proof shelters on or below the ground.

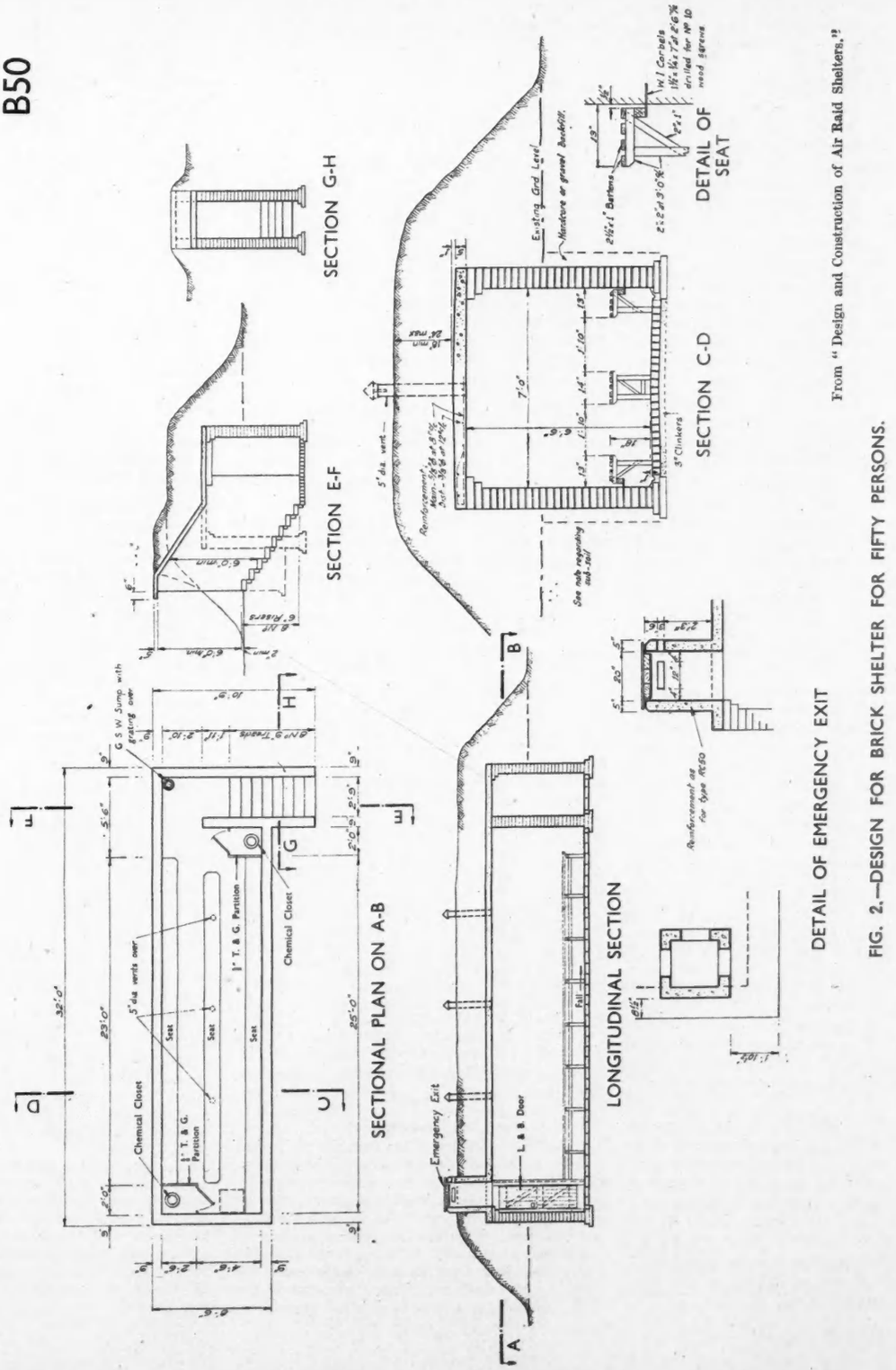
Two designs taken from this book are given in Figs. 1 and 2.

Fig. 1 shows a design for a partly sunk reinforced concrete shelter for 50 persons complying in all respects with the requirements of the Revised Code. It is suitable for all normal sites, but if the subsoil is frequently wet the excavation should be taken 3 in. deeper and a 3-in. blinding layer of 1 : 12 concrete should be laid over the bottom of the excavation before construction is started. For normal sites a 1 : 2 : 4 concrete mix is suitable, but for wet sites the proportions should be 1 : 1½ : 3, and there should also be a bitumenised strip 6 in. wide to form a damp-course between the walls and the blinding layer. To cope with any water that may enter the shelter on a wet site, a ¾-in. pump should be fixed to the wall 2 ft. 6 in. above the sump. Where the subsoil water is always close to the surface a surface shelter, for which designs are also given, should be used —one of the commonest mistakes in the past has been to sink or partly sink shelters in waterlogged soils.

In a well-drained soil, such as gravel, the top reinforcement in the floor may be omitted. In firm clay, shuttering to the sides against the earth may be omitted if 2 in. extra thickness of concrete is provided on the soil side of the walls.

If gas protection is required, the vents to the emergency exit may be sealed or omitted and a gas-tight cover fitted; a gas-tight timber entrance door should also be fitted.

A design for a partly sunk brick shelter for 50 persons is shown in Fig. 2. This also complies with the Revised Code, and is designed for use on reasonably dry sites; it is unsuitable for wet sites or for use in soils likely to exert large lateral pressure. The ventilation can be improved by fitting extractor cowls to the roof vents. It is very desirable in this type of shelter that the floor should be porous enough to drain the shelter in case of the entrance of storm-water; this can be done by laying the floor bricks on sand without mortar and sweeping sand into the joints. The shelter can be rendered gas-tight in the same way as in the case of the reinforced concrete shelter.



From "Design and Construction of Air Raid Shelters."

FIG. 2.—DESIGN FOR BRICK SHELTER FOR FIFTY PERSONS.

THE LONDON BUILDING ACTS.—I.

By W. T. CRESWELL, K.C., Hon. A.R.I.B.A., A.S.I., etc., and NORMAN P. GREIG, B.A., Barrister-at-Law.

SETTLEMENT OF DISPUTES AND DIFFERENCES.

THE various methods by which disputes and differences may arise under the London Building Acts, and the means which the Acts themselves have provided for their settlement, cannot fail to be of practical value to all those employed in the building and engineering industries. It will be of interest, therefore, to indicate the procedure given by the unrepealed parts of the Act of 1930, and that provided under the new (Amendment) Act of 1939, in dealing with the disputes and differences which are likely to arise thereunder, and which the law, in its wisdom, has foreseen and provided for.

No general rule can be laid down, for disputes may arise through various causes, *e.g.*, dissatisfaction against decisions of the superintending architect or district surveyor, determinations of the London County Council, notices given by either or both, allocation of expenses, amount of compensation, and last, but by no means least, differences which must inevitably arise in the exercise of the rights of building and adjoining owners under Part VI of the Act of 1939, which repeals, replaces and amends Part IX of the 1930 Act.

Generally, the following methods of settling disputes and differences are included in the Acts: (1) Arbitration, (2) the special procedure as to the settlement of differences between a building owner and an adjoining owner under Section 55 of the 1939 Act, (3) an appeal to the London County Council, followed, if the applicant is still dissatisfied with the decision, to the tribunal of appeal, (4) appeal direct to the tribunal of appeal, (5) an appeal to the County Court either with or without further appeal to the High Court, and (6) an appeal to a court of summary jurisdiction.

(1) Arbitration.

The Act of 1930 contained few instances of recourse to arbitration, a method of settling differences which is becoming increasingly popular, but as Part II (Formation and Widening of Streets), with one slight exception, and Part III (Lines of Building Frontage) of the 1930 Act are not repealed, the two instances where arbitration is permissible are still retained. Thus, under Section 15 of the 1930 Act, following upon the sanctions of the London County Council in respect to the layout of new streets when it is made a condition of their sanction:—

(*a*) to the formation or laying out of any street for vehicular traffic over land which either on the first day of January, 1895, or at any time within seven years before that date has been occupied by buildings or by market garden; or

(*b*) to the adaptation or use for vehicular traffic of any street or way, not previously so adapted or used, that the street or way shall be throughout or in part of a greater width than forty feet; or the Council determines under Section 13 of the Act that the position of a building with reference to the highway shall be greater than the prescribed distance under the Act, the Council is liable to pay the owner of land or buildings required for such greater width or such greater distance compensation for the loss or injury (if any) sustained by him by such requirements. It is further provided that should the amount of compensation payable to an owner be not agreed within two months from the time a certain condition is imposed, or determination arrived at by the L.C.C., then (unless the Council waives the condition or determination), if the compensation claimed is more than fifty pounds it must be settled by arbitration. (Below that amount it is recovered summarily.)

The arbitration proceedings are to be in accordance with the provisions of the Lands Clauses Acts applicable in the case of disputed compensation. By Section 25 of the Lands Clauses Consolidation Act, 1845, unless both parties can concur in the appointment of a single arbitrator, each party, on the request of the other party, must nominate and appoint an arbitrator. By Section 27 of the same Act, these two arbitrators, before entering upon the matters referred to them, appoint an umpire. Should the arbitrators fail to make their award within twenty-one days, or an extended time, the matter is to go to the umpire (Section 31). The costs of the arbitration are to be borne by the parties in the manner settled by the arbitrators.

Similarly, under Section 23 of the Act of 1930, where compensation is allowable under that section to an owner whose building or structure, which projects beyond the general line of buildings, has been taken down and is required by the London County Council to be set back, the amount of damage or expense sustained or incurred by the owner may, if not agreed, be recovered summarily or settled by arbitration in a manner similar to that already described.

(To be continued.)

THE INSTITUTE OF QUANTITY SURVEYORS

Annual General Meeting.

THE first annual general meeting of the Institute of Quantity Surveyors was held at the Cannon-street Restaurant on Saturday, April 6, when some 50 members were present. Satisfaction was expressed at the progress that had been made, in spite of the fact that war broke out within a few months of inauguration. It was unanimously decided to obtain registration as a professional body under the Companies Acts and to set up branches in various provincial centres.

The following were elected to serve on the Council: Messrs. A. C. Remnant, W. T. Jones, H. B. Hobson, F. C. Dolling, F. Biscoe-Taylor, J. B. Shaw, H. A. L. Tozer (members of previous Council), W. J. Masterman, C. Thornton-Hall, A. E. R. Wilson, L. E. Wheble, C. R. Vinycombe.

Particulars regarding membership can be obtained from the hon. secretary, Mr. W. T. Jones, "Hazelwood," Mill-street, Kidlington, Oxford.

Potato Conversion Factories.

The Ministry of Food has announced further details of its plans for the setting up of additional factories to convert surplus potatoes into animal feeding-stuffs. Arrangements have been made for the operation of six factories. Two are in operation already, the third and fourth factories will probably be placed near Dundee and Selby, and the fifth in Lincolnshire. The situation of the sixth factory has not been decided upon.

OFFICIAL NOTIFICATIONS

Iron and Steel Control.

The Minister of Supply has made the Control of Iron and Steel (No. 8) Order (S.R. and O. 1940, No. 496) which came into force on April 8, superseding the Control of Iron and Steel (No. 6) Order, made on January 29.

Under the provisions hitherto in force, certain classes of purchasers were exempted from the licence requirement when purchasing steel for specified purposes, but in future, for the products included within the new distribution scheme, this exemption will be limited to purchases covered by a symbol and contract or reference number, the use of which is authorised by the appropriate department.

Although the Order came into force on April 8, the operation of the direction in connection with this scheme is postponed in the case of future orders for steel products covered by the scheme until Monday, April 29, and, in the case of old orders for such products, until May 31, so as to give time for the allotment through the various channels of the symbols, contract or reference numbers and delivery periods.

Attention is called to the fact that under the new direction all licences for steel products covered by the scheme heretofore issued to stockholding merchants are revoked. These should, therefore, be returned forthwith to the Iron and Steel Control. Arrangements have been made for the immediate replacement of these licences by new licences. All other existing licences remain in operation subject to the provisions of the new distribution scheme.

Licences and exemption from licences for materials not covered by the scheme will continue as heretofore.

Increases in maximum prices have been fixed for certain more highly finished products, notably crown iron, colliery arches and accessories, galvanised sheets, tubes and pipes, certain types of wire and wire products, steel castings, and railway coil and laminated springs.

Control of Chrome, Magnesite and Wolfram.

The Minister of Supply has made the Control of Chrome, Magnesite and Wolfram (No. 1) Order. The Order covers chromium, and chromium compounds, defined as including any chemical compound of chromium and ore concentrates or residues containing chromium; "magnesite," defined as including natural or manufactured magnesium oxides, hydroxides or carbonates and dolomite and any mixtures of any of the foregoing, with or without water; and "wolfram," defined as including wolframite, scheelite and any other concentrate or residue containing tungsten.

Under the Order the sale and purchase of these materials, wherever situated, will be regulated by a licensing scheme, but a direction issued at the same time under the Order exempts from the licensing provisions everything except chrome ore and concentrates, magnesite costing less than £25 per ton delivered at consumers' works, and wolfram.

Power is also taken to require anyone concerned in the handling or treatment of any of the materials referred to in the first paragraph to keep books and records and to produce them for inspection upon demand, and to furnish estimates, returns and other information as may be required.

Mr. N. Isaacs, of the Ferro-Alloys section of the Iron and Steel Control, will act as Adviser to the new Control on wolfram.

The Order comes into force on April 15, except as regards "wolfram," for which it came into force on April 8, on which date wolfram was removed from the ambit of the Iron and Steel Order by the Iron and Steel (No. 8) Order.

Inquiries in regard to wolfram should be addressed to the Iron and Steel Control, Steel House, Tothill-street, London, S.W.1, and for other products to the Chrome Ore, Magnesite and Wolfram Control, Broadway-court, Broadway, London, S.W.1. Copies of the above Orders may be obtained from H.M. Stationery Office, or through any bookseller.

EMERGENCY INQUIRY BUREAU

Questions from readers arising out of War-time difficulties and recent Emergency legislation will be answered by a special staff of contributors. Questions, which should be addressed to the Editor, should be accompanied by a stamped and addressed envelope.

Disposal of Articles: Maintenance Period.

SIR,—*The following expression is often found in quantities and specifications: "Remove and hand over to the clerk of works." Can such context include the placing of such articles into a store or other place as directed by the clerk? Or does it indicate that such articles removed are to remain on the premises from which they are removed?*

Also, if a maintenance period on a contract expire without written and/or verbal instructions being received to put right certain works through omission or any other reason on the part of the architect, can the contractor be compelled to do such maintenance work after such a period specified, even at the threat of withholding payment of retention moneys? TERTIUS.

A correspondent writes as follows: The expression given certainly could not include removal to, or placing in, a store. It means what it says, viz., that the item is to be removed from the position it is in, and handed to the clerk of works on the premises —nothing more.

The other question is more difficult. So much depends on the terms of the contract, which should be seen. It is undoubtedly the duty of the architect to call attention to patent defects during the maintenance period, and the architect can withhold money therefor. If he does not do so, the builder is entitled to assume that he has finally completed the work, and to be paid in accordance with the terms of the contract what is finally due to him. If, however, the defects are latent, and, though in existence before the maintenance period expired, were not discovered till long after it had, in fact, expired, the architect can then serve the builder with a notice to make good those latent defects. (See Creswell on "The Powers of the Architect," published by *The Builder*, at page 56.)

Perished Brick Wall.

SIR,—*I am concerned with a boundary wall several hundred yards in length, about 6 ft. in height, 1½ bricks thick, and built with local red bricks, rather soft in texture, in lime mortar.*

(1) *The wall is probably 80 years old and has no damp-proof course, but is set on a concrete foundation in a subsoil mainly sandy, with no clay.*

(2) *The coping consists of one course of splayed bricks set overarching, surmounted by a half-round brick.*

(3) *Many of the bricks are worn away and the joints are open, with the mortar perished.*

(4) *In places the wall is retaining earth to a height of 3 ft.*

(5) *About four years ago, pointing in a rich cement mortar was carried out in places, but whole lengths of the cement pointing are now dropping off, probably due to the action of the recent severe frosts.*

(6) *Incidentally, it is noticed that the joints were not well raked out before applying the new mortar pointing.*

(7) *Many of the perished bricks will have to be cut out, but I am perplexed as to the best way to deal with the pointing to the old brickwork.*

Possibly some of your readers have had experience in similar cases and can advise me. BOND.

A correspondent writes as follows:—

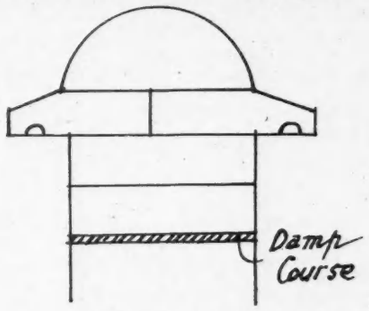
(1) The wall being without a dampcourse, disintegration has followed, not only of the mortar but also of the bricks, although resting on a concrete foundation.

(2) With reference to the coping, I assume it is constructed as per sketch. All copings should be provided with a dampcourse as shown. After weeks of rain it will be noticed that the wet penetrates well down the wall. All parapet walls should have dampcourses.

(3) The mortar is probably perished and the bricks also. (See answer No. 1.)

(4) Earth and spoil, which are always more or less damp, should never be allowed to rest against a wall. No earth should be above a dampcourse. If the wet earth or spoil must be against the wall, remove and then render the wall with 1½ in. thick waterproofed Portland cement and sand, and replace spoil.

(5) It was obviously wrong to point with a rich cement mortar; the result is that you close in the moisture and weaken the mortar the wall is built with, and if the brick is soft



it will gradually start getting very soft and finally fall to pieces, giving the frost a chance to do untold damage. If the wall is pointed it should be with a lime mortar with 5 per cent. to 10 per cent. of Portland cement added.

(6) All pointing should be raked out deep, at least 1½ in., and before and during the pointing water should be continually thrown into the joints to wash out the fine decayed mortar.

(7) The perished bricks should be cut entirely out, whether they are headers or stretchers. At the best the wall cannot be preserved for any length of time on account of the absence of a dampcourse. G. W. H.

IN PARLIAMENT

Militia Camps.

MR. STOKES asked the Secretary of State for War on whose recommendation quantity surveyors were appointed to supervise the construction of militia camps; and whether he was aware of their unsuitability for work of this nature.

MR. OLIVER STANLEY said that owing to the very large volume of work already being carried out there were no Royal Engineer officers available to supervise the construction of the militia camps. It was therefore decided to appoint firms of surveyors to supervise the execution of the contracts. The firms of surveyors appointed were selected from a panel submitted by the Chartered Surveyors' Institution.

It was realised that in certain cases persons in the firm might not have the engineering or architectural knowledge required to control the actual detail of construction, though fully qualified in such matters as measurement and costing. The firms were therefore empowered to engage such assistance as was found to be necessary, and to employ specialist consultants where required. The Department relied on frequent inspection by highly qualified senior officers to ensure that the quality of construction reached the required standard. The procedure had not been found unsatisfactory.

MR. STOKES asked whether the War Office specifications for hutted and other camps and buildings generally had now been altered to allow of the use of concrete spun pipes for sewage work, and Fletton hard bricks for hutments or foundations.

MR. OLIVER STANLEY said that in buildings both of a temporary and a permanent nature concrete spun pipes 9 in. in diameter and above were authorised. Fletton hard bricks were authorised for the foundations of temporary war-time hutments, provided that they were of approved pattern and samples were passed by the competent military authority. These bricks were not, however, authorised for permanent buildings below damp-proof course.

Architects and Government Work.

MR. ADAMS asked the First Commissioner of Works whether a reasonable share of Government building work was being distributed in the northern area of England and local architects were being engaged in carrying out such contracts.

MR. GRIMSTON said that sites for the building schemes which were being carried out by the Office of Works were selected with regard to the requirements of the Departments for whom the buildings were being provided, which precluded distribution on a purely geographical basis. Up to the present the architectural staff of that Department had, on the whole, been sufficient to deal with the work, although in certain suitable cases local architects had been employed.

Skilled Operatives.

MR. DE LA BERE asked the Minister of Agriculture whether he would confer with the Minister of Labour with a view to the utilisation of the many skilled building operatives who had now no work and were unemployed as a result of the Government's restrictions on building, for a comprehensive tile drainage scheme throughout the country, in view of the many millions of water-logged acres unsuitable for mole drainage.

SIR R. DORMAN-SMITH said he had already been in consultation with the Minister of Labour on this matter, and he understood that the Government's programme of works and buildings was expected to absorb a large number of workers in the building and allied industries, and therefore it could not be assumed that skilled building operatives would be available for field drainage work on farms.

Civil Building.

MR. D. ADAMS asked the Minister of Supply whether, with a view to maintaining the framework of the building industry, he would consider relaxing the ban on civil building to allow a small well-distributed flow of work to proceed.

COLONEL LLEWELLIN (Parliamentary Secretary to the Ministry of Supply) said that so far as the Ministry of Supply was concerned, no ban had been placed on civil building, except in so far as arose out of inability to release, for allocation by the Departments immediately concerned, more than a limited quantity of certain materials used in building which were in short supply.

Control of Timber.

MR. ADAMS asked the Minister of Supply whether he was aware that the shortage of deliveries of timber was preventing the completion of work already in progress and the carrying out of essential building schemes and repair work; and whether some supplies of controlled timber could now be released for the execution of such work.

COLONEL LLEWELLIN said that he could hold out no hope of the early release of larger quantities of timber than at present.

Metal Window Frames.

SIR STANLEY REED asked the First Commissioner of Works to what extent timber was being used in place of metal frames for windows in Government buildings; and why arbitrary sizes were being fixed for such windows when there was an ample supply of standard metal frames available.

MR. GRIMSTON, who replied, said that in buildings for which the First Commissioner was responsible, timber was being used for window frames only to a very limited extent, and that mainly in buildings which were in course of erection at the outbreak of war. In war-time buildings, which constituted by far the largest proportion of his Department's building programme, timber was used only in cases in which metal was unsuitable because of the nature of the process to be carried on in the buildings. In general, metal windows of standard size were being used in his Department's war-time building programme.

A.R.P. SCHEMES

LONDON.

ACTON.—T.C. accepted tender of A. H. Earnshaw and Sons, for 236 shelters, at £5,269.

BRENTFORD AND CHISWICK.—C. K. Davies, Ltd., Shepperton, accepted by T.C. for 50-person surface and semi-trench brick shelters. Plans by L. A. Cooper, L.R.I.B.A., B.E. and S. Prices as follows: Area No. 2, Brentford, £1,728 12s. 6d., and Area No. 3, Chiswick, £473 4s. 1d.

COULSDON AND PURLEY.—U.D.C. received M.H. consent to borrowing £10,509 for public shelters, wardens' posts and cleansing stations.—S. to proceed with shelter for Coulsdon and District day nursery and shelter for Purley and District day nursery.

EAST HAM.—Minister of Home Security approved protection at sewage disposal works for T.C.—Plans passed: Shelter, rear 165, High-st., North Woolwich Equitable Building Society; shelter, 162-164, High-st. North, Boots Drug Stores, Ltd.; and shelter, Manor Park Cemetery, Sebert-rd., Manor Park Cemetery Co., Ltd.

ESHER.—District Council recommended scheme for adaptation of premises at Old Cranleighans' sports ground, Thames Ditton, to purposes of a central training school for civil defence personnel, at £451.

SOUTHGATE.—T.C. recommend following contracts: Replacement of sandbagging around certain buildings, W. Manders and Co., of Enfield, at £981 15s.; supply and fixing of seating in public trenches and shelters, Newby Bros., Ltd., at 11d. per ft. run; installation of air filtration plant in A.R.P. report centre, E. L. Maiden, Ltd., at £223 3s. With approval of Ministry of Home Security and C.C., 6 communal shelters being erected in various parts of borough.

WALTHAMSTOW. — T.C. to provide shelters for 800 persons in Selborne-road recreation ground. Additional amount of £15,000 is to be included in estimate for year ending March 31, 1941, for school protection works. Plans passed for shelter, 169, Hoe-street, H. C. Horswill.

WEMBLEY.—B.E. and S. to prepare for submission to Home Office two schemes for typical areas of Borough for erection of communal domestic surface shelters in streets adjoining the houses.—Subject to approval of Middlesex C.C., T.C. to provide further seats in public shelters, at £556.

WESTMINSTER.—Brick and concrete air raid shelters to be built under Haymarket and Lower Regent-street, by City Council.

WIMBLEDON.—T.C. accepted tender for public surface shelter in Merton-road, opposite the South Wimbledon Underground Station submitted by Bleach and Dorey, Ltd., at £538, in place of previous tender accepted.

WOOLWICH.—B.C. recommend following: Shelters to be provided at Perrott-st., four shelters for 200, at £840.—At rear of Ann-st., two shelters for 100, at £435.—Walmer-terr., at junction with Robert-st., two shelters, for 100, at £453.—Temporary mortuary, Plumstead baths, at £595.—Subject to approval of Minister of Home Security, public shelters, at £417 10s., at Rochester-way and Artillery-pl.—Two trench shelters on land belonging to R.A.C.S. at Commonwealth-buildings, Warspite-rd., Woolwich, by Geo. Wimpey & Co., Ltd., at £425 4s.—Public shelter, 4, Vincent-rd., S.E.18, at £305. Approval of Minister of Home Security granted.

PROVINCIAL.

ACCRINGTON.—T.C. propose surface and semi-sunk shelters at Ellison's tenement and in garden of Labour Hall, alterations for basement shelter at Market Hall, at £1,000, and public shelter, junction of Adelaide-street and Sandy-lane.

ADLINGTON. — L. Fairclough, Ltd., Chapel-street, contractors, at £770, for erection of Anderson steel shelters for U.D.C. Plans by T. Warick, S., 28, Church-street.

ATHERTON.—U.D.C. to install electricity in 28 shelters.

BELPER.—Wheeldon Bros., The Clusters, contractors, at £443, for shelters in King-street and New-road for U.D.C. Plans by T. Fenn, S.

BILLINGHAM-ON-TEES.—U.D.C. to construct air raid protective works at sewerage works, at £2,500. J. H. Hill, S.

BIRKENHEAD.—For conversion of basement at 9, Hamilton-square for shelter, T.C. accepted tender of Lloyd and Cross, Ltd., Birkenhead, at £247.

BLACKPOOL.—C.B. approved electric lighting in public shelters in Borough.—T.C. to invite tenders for two underground air raid shelters for protection of employees at new gasworks at Marton.—Permission granted for three shelters to be erected on land adjoining Hawes Side junior school.—5,000-gallon steel dam for storage of water for fire-fighting purposes to be erected.

BRADFORD.—T.C. propose public shelter Fairweather Green depot.

CANNOCK.—U.D.C. propose 13 permanent air wardens' posts.

CHESHUNT. — U.D.C. approved garage accommodation at Post No. 4, at £250.—Council made application to Middlesex C.C. for approval to spend £242 10s. for seating, sanitary accommodation, lighting and direction signs for existing public shelters.

CHESTERFIELD.—Revill and Beresford, Boythorpe-road, Chesterfield, accepted by T.C. for surface shelters and certain alterations at Hipper-street and St. Helen's-street schools, at £644 and £598. Wilcockson and Cutts, 12, Saltergate, architects.

COVENTRY.—Tender of W. H. Jones and Son, Ltd., amounting to £834 7s. 6d., accepted by T.C. for construction of "pill-box" type of public shelter at The Hollows, Foleshill-road.—Tenders to be invited for constructional work in connection with proposed shelter, junction of Hearsall-lane and Spon End.—Tenders accepted for shelters at schools: Barkers' Butts school, Fred Hocking, £3,037 9s. 8d.; Cheylesmore, Kelley and Son (Coventry), Ltd., £531; Frederick Bird, H. J. Hewitt, £1,757; John Gulson, Cross and Co., £295; South-street, H. J. Hewitt, £148 16s.; Stoke Council, F. G. Robinson, £449; Stoke Heath, Fred Hocking, £275 17s.; St. John's C.E., H. J. Hewitt, £220; St. Michael's C.E., E. Harris and Son, £216; Folly-lane, F. G. Robinson, £1,395; St. Elizabeth's R.C., K. B. Benfield, £275; Stoke C.E., J. Daniels, £324.—Plans passed: Conversion of partly constructed house into A.R.P. fire station, Widdrington-road, for Coventry Climax Engines, Ltd.; shelter, Far Gosford-street, for Coventry Motor Fittings, Ltd.

DARLINGTON. — T.C. approved: G. Dougill and Son for Darlington Laundry, Ltd., shelter, Haughton-road.—W. and T. R. Milburn for Binns, Ltd., shelter, Blackwellgate.—G. Dougill and Son for Mr. Emmerson, shelter, 77, Staindrop-road.

ECCLES.—Franklyn-Friar, Ltd., 43, Ullswater-road, Flixton, Manchester, contractors for shelters for T.C. Plans by T. Elce, B.E.

FELLING-ON-TYNE. — U.D.C. submitted to Home Office for approval plan for A.F.S. action station at Windy Nook.—S. to U.D.C. to prepare plans for public shelter, Zion Chapel site, for 100 people.

GATESHEAD.—Home Office sanctioned domestic shelters for 2,680 people, at £9,548.

HEBBURN-ON-TYNE.—S. and H. Oake, Charles-street, contractors for adaptation of Newtown school as first-aid post for U.D.C.

JARROW.—Tenders of D. Glen, back Queen's-road, Jarrow, at £1,100, and W. Sax and Co., Crook, Durham, at £950, accepted for cleansing stations.

LIVERPOOL.—R. Costain and Sons, Ltd., Barlow's-lane, Fazakerley, contractors for shelters to accommodate 100 scholars at St. John the Evangelist School, Walton, for T.C. Michael Thornley, architect of Briggs and Thornley, Liver-buildings.

MANCHESTER.—T.C. accepted tender of Alfred Hodkinson, Ltd., Manchester, for staff air raid shelter at Temple-street, Chorlton-upon-Medlock. L. Taylor, of Manchester, and J. Ferguson and Co., Ltd., of Salford, carpentry and painting, contractors respectively. Plans approved for shelter to proposed flats, Every-street, Mitchell-street, Junction-street, Russell-street, etc., Ancoats. Council approved replacement of sandbags by permanent protective works, at £2,580.

MIDDLESBROUGH.—T.C. to build brick surface shelters in Cannon Ward, tenders being obtained. C. Gorman, B.E.

NUNEATON.—T.C. placed contract with G. Cooper and Sons (Nuneaton), Ltd., at £290, for alterations to buildings in George and Dragon yard for use as an emergency mortuary.

ORMSKIRK.—R.D.C. to erect 9 shelters, to accommodate 50 persons each, in Park-lane, Netherton, and 2 shelters, for 300 persons each, at £2,518. Plans by R. Rosbotham, S.

PRESTON.—T.C. to provide additional public shelters, Open Market, Fylde-street, Starchhouse-square and St. George's-road, at £4,800, also 2,388 domestic surface shelters with accommodation for 9,468 persons, at £35,000. R. Williams, B.E. and S., prepared plans.

ROTHERHAM.—T.C. proposes shelter at electricity sub-station, Sheffield-road.

ST. HELENS.—Tender of Isaac Vose, Dentons Green-lane, St. Helens, recommended for public air raid shelter (trench type) under future children's playground at Liverpool-street and Greenbank-crescent for T.C. Plans by A. P. Statham, B. and Water E.

SALFORD.—E. J. Coupe and Co., Ltd., Springfield-lane, contractors for shelters in Gray-street, Leopard-street, Weaste and Mount Pleasant off St. Stephen-street, for Corporation. Plans by W. A. Walter, B.E.

SOUTHAMPTON.—C.B. placed contracts for report centres at Shirley and Bitterne with: Shirley, Butler Bros. (Southampton), Ltd., 302, Winchester-road, Southampton, and Bitterne, R. H. and A. W. J. Hinton, "Wetheral," Deacon-crescent, Southampton. Plans by S. G. Stanton, B.E. and S.

STOURBRIDGE. — Andrew Blair, Lyell and Co., Ltd., Tyburn-road, Birmingham, contractors, at £2,577, for public shelters for 295 persons and 570 school boys at old Brewery, Duke-street; also A. M. Griffith and Son, Ltd., Thomas-street, Wolverhampton, contractors, at £1,531, for 20 surface shelters, Poole-street, etc., 34, Beech-road and 17, Stanley-road, for T.C. Plans by G. N. Maynard, B.S.

SUNDERLAND.—First-aid post to be constructed at Monkwearmouth Hospital. Architects, W. and T. R. Milburn, 17, Fawcett-street.

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SWINTON AND PENDLEBURY.—Franklyn-Fryer, Ltd., 43, Ullswater-road, Flixton, Manchester, contractors for domestic surface shelters for the T.C. Plans by W. Cordwell, B.S.

WALLASEY.—W. Bradshaw, 79, Northbrook-road, Wallasey, accepted by T.C. for cleansing station at electricity generating station, Limekiln-lane. Plans by L. St. G. Wilkinson, M.Inst.C.E., B.E. and S.

WEST BRIDGFORD. — U.D.C. placed contracts for erection of 1,500 Anderson steel shelters with Gibbons and Cartwright, 44, Parliament-street, Nottingham, and A. Goodchild, Meadow-lane, Nottingham, at following prices: Small shelter, £1 2s.; standard, £1 7s. 6d.; shelter with extension "A," £1 12s.; and with extension "B," £1 18s. 6d. Plans by H. Carmichael, M.Inst.M. and Cy.E., E. and S.

WOLVERHAMPTON.—N. Hyde, Sedgley, near Dudley, contractor for 35 brick surface shelters on various sites for T.C. Plans by H. B. Robinson, B.E.

SCOTLAND.

ABERDEEN.—T.C. approved £20,272 for shelters for schools.

AYRSHIRE.—The C.C. has decided to spend almost £49,000 on shelters throughout the county from plans prepared by the County Architect, Ayr.

DUNDEE.—Corporation approved of 10 auxiliary fire stations. Plans by D. MacLay, architect, City-chambers.

GLASGOW.—Following shelters approved: At Shield-road public school, architect: J. Thomson, 136, Wellington-street, contractors: J. Graham and Co., Ltd., and J. and J. Young, Ltd.—At Sir John Milson Cuthbertson public school, architects: W. Baillie and Sons, Accountancy Hall, West Regent-street, contractors: T. Stewart and Co., Ltd.—At Wellfield public school, architects and quantity surveyors, Lennox and Macmath, Commercial Bank of Scotland-buildings, contractors: Wilson Bros. and Co., Ltd.—At Townhead public school, architect and quantity surveyor: L. H. Ross, 221, West George-street, contractor: J. Fleming. —At St. Joseph's boys' school, architect and quantity surveyor: J. Taylor, 220, West Regent-street, contractors: Brown, Fraser and Co., Ltd.—At Croftfoot public school, architects and quantity surveyors: H. and D. Barclay, 121, West Regent-street, contractors: J. Lawrence and Co. (Glasgow), Ltd. —At Victoria public school, Govanhill, architects and quantity surveyors: Wm. Baillie and Son, Accountancy Hall, West Regent-street, contractors: J. MacCallum and Co., Ltd.—At Overnewton-street public school, architect and quantity surveyor: S. Bunton, 237, Bath-street, contractors: T. Henderson and Co., Ltd.—At Camlachie public school, architect, H. and D. Barclay. All architects and contractors of Glasgow.

GREENOCK.—Plans prepared for first-aid casualty centre and ambulance department, etc., at The Toga House Hospital buildings by D. L. Henderson, Housing Architect, Old Harbour Trust Offices. Contractors: J. and R. Kirk, Ltd., Greenock.—For shelters on The Esplanade, plans prepared by R. Miller, Municipal-buildings. Contractors: R. Kirkwoods Trustees, Greenock.

SHOTTS.—Plans for shelters at the County Sanatorium prepared by J. Stewart, architect, Albert-street, Motherwell-Wishaw. Contractors: R. Paterson and Son, Ltd., Airdrie.

NEW CINEMAS

ASHBY-DE-LA-ZOUCH.—Messrs. Alfred J. Thraves & Son, Whitefriars House, Friar-lane, Nottingham, are the architects for the erection of a cinema in Station-road.

MANCHESTER.—Amended plans have been approved for the conversion of the Prince's Theatre into a cinema to seat 1,550, for Associated British Cinemas, Ltd., 30, Golden-square, W.1. The architect is Mr. W. R. Glen, F.R.I.A.S. Demolition work is to commence at the end of the month.

WOOLWICH.—The Ministry of Supply has given permission for building work to proceed on the erection of a cinema on the site of the Hippodrome, Wellington-street, for Associated British Cinemas, Ltd. The architect is Mr. W. R. Glen, F.R.I.A.S., and the contractors are Messrs. Hunter & Clark, Ltd., 7, Buckhold-road, Wandsworth, S.W.18.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender, unless stated to the contrary. The dates at the head of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained. Abbreviations: (A.) for A.R.I.B.A.; B. of E. for Board of Education; B.C. for Borough Council; B.E. for Borough Engineer; B.S. for Borough Surveyor; C. for Clerk; C.B. for County Borough; C.C. for County Council; C.E. for County Engineer; C.S. for County Surveyor; D.S. for District Surveyor; E. for Engineer; E.C. for Education Committee; (F.) for F.R.I.B.A.; (L.) for L.R.I.B.A.; M.W.B. for Metropolitan Water Board; M.H. for Ministry of Health; M.T. for Ministry of Transport; P.C. for Parish Council; R.D.C. for Rural District Council; S. for Surveyor; T.C. for Town Clerk and Town Council; and U.D.C. for Urban District Council.

BUILDING.

APRIL 12.

†**Stokesley R.D.C.**—Fire station and cottage on land attached to Council Offices. Kitching and Co., architects, 21, Albert-rd., Middlesbrough. Dep. £1 1s.

†**Wolverhampton C.B.**—Cow house, Lower Pendeford Farm. H. B. Robinson, B.E. Dep. £2 2s.

APRIL 13.

†**Rowley Regis T.C.**—Fire station, Mace-st., Old Hill. B.S. Dep. £2 2s.

APRIL 15.

Bushey U.D.C.—Erection of Anderson steel shelters at certain premises. Ernest E. Ryder, E. and S.

APRIL 16.

Barrow-in-Furness T.C.—18 precast concrete air raid shelters at Cambridge-st. school playing field. F. L. Wooldridge, B.E. and S.

Coseley U.D.C.—Alterations to existing warehouse at Priorfields Foundry, Spring-rd., Lanesfield. G. Edwin Mitchell, E. and S.

Dublin Corporation.—144 flat dwellings and 8 shops on Newfoundland-st. housing area. H. G. Simms (A.), Housing Architect. Dep. £5 5s.

Manchester T.C.—Communal domestic surface shelters. City Engineer's Office, Town Hall. Dep. £2 2s.

Tyldesley U.D.C.—Erection of Anderson shelters. F. E. Jones, S.

APRIL 17.

Batley T.C.—61 domestic surface shelters. B.E., Brunswick-st.

***Birmingham T.C.**—Switchhouses etc., at new Hains Hall "B" power station, Lea Marston. F. Forrest, Chief E. and Manager, 14, Dale-end.

Cambs. C.C.—Builders' work in connection with installation of new pumping machinery on Soham (Mere) estate. County Agricultural Officer, Cambridge.

Commissioners of Public Works in Ireland.—Seaplane harbour at Shannon airport, Rineanna, Co. Clare. Geo. F. Fagan, Sec., Office of Public Works, Dublin. Dep £5.

Cumberland C.C.—Improvements to offices at Cockermouth Fairfield council school. J. H. Haughan (A.), County Architect, 4, Alfred-st. North, Carlisle. Dep. £1.

Great Yarmouth T.C.—Additional shelters at local elementary schools. B.E.

Islington B.C.—Concrete walls and sides to insides of Anderson shelters. B.E. and S. Dep. £1 1s.

Kearsley U.D.C.—Erection of Anderson steel shelters throughout district. E. and S.

Letterkenny U.D.C.—90 4-roomed houses. C. V. McLaughlin, architect, Letterkenny. Dep. £20.

APRIL 18.

Manchester T.C.—2 air raid shelters at Convent of Good Shepherd, Blackley. City Architect. Dep. £1 1s.

APRIL 19.

Evesham T.C.—Strengthening basements and constructing surface shelter. J. Abbott, E., Municipal Offices. Dep. £1 1s.

Huntingdon R.D.C.—Pair of houses in parishes of Barham, Brampton, Sawtry, Upton, and Upwood. Wm. A. Lea (F.), 4, Market-hill, Huntingdon. Dep. £2 2s.

***Islington B.C.** — Domestic surface shelters, Matthews and Son, architects and surveyors, 72, Tottenham Court-rd., W.1. Dep. £1 1s.

Salford T.C. — Transformer sub-station building, Rugby-rd., Pendleton. City Electrical E., Electricity Dept., Frederick-rd.

Willesden T.C.—Public shelter No. 38. F. Wayman Brown, B.E. and S. Dep. £5 5s.

APRIL 22.

Cardiff T.C.—Approx. 350 sup. yds. of brick walling, etc., bounding site of Bryn-y-Don school, Dinas Powis, Glam. City E. Dep. £2 2s.

Kidsgrove U.D.C.—Surface shelter, The Avenue. H. W. Crowther-Green, E. and S. Dep. £1 1s.

Maghull Home for Epileptics.—Piggery. William Grisewood and Son, 20, Exchange-st. East, Liverpool, 2.

Montgomeryshire E.C.—Caretaker's cottage, Banw Council senior school, Garthbeibio. H. Wyn Jones, Director of Education, Newtown. Dep. £2 2s.

Wallasey C.B.—12 surface shelters at Riverside school, Demesne-st. B.E.

APRIL 25.

Southport C.B.—Tuberculosis pavilion at New Hall Hospital, Scarisbrick. B.E. Dep. £1 1s.

APRIL 27.

Downpatrick R.D.C. — Alterations and renewals at Castlewellan waterworks. E., 24, Arthur-st., Belfast. R. J. Carr, C., Council Offices, Downpatrick.

APRIL 29.

***Biggleswade Water Board.**—Pair of semi-detached cottages, Newspring. A. Singleton, architect, 105, Biggleswade-rd., Caldecote. Dep. £2 2s.

***Erith T.C.**—Transformer station, Station-rd., Belvedere. J. H. Clayton, B.E. and S. Dep. £1 1s.

NO DATE.

Burnley R.D.C.—Precast units for shelters, and erection in various parts of rural district of brick surface and concrete semi-sunk shelters. S., 22, Nicholas-st. Dep. £1 1s.

Havant and Waterloo U.D.C.—First-aid post, The Pallant, Havant. E. and S. Dep. £1 1s.

PAINTING, ELECTRIC LIGHTING, HEATING, &c.

APRIL 16.

Coedpoeth.—Painting outside Salem Congregational church. T. O. Williams, 8, Smithy-rd., Coedpoeth.

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APRIL 16.

Belfast T.C.—Painting work at Carrick House, Lower Regent-st. City S. (Architectural Section, Room 92).

South Cambs. R.D.C.—External treatment to walls of houses. H. Hales, C., County Hall, Hobson-st., Cambridge.

APRIL 17.

Glasgow Corporation.—Painter work at various schools. Education Offices (Property Department), 129, Bath-st. Dep. 10s. 6d.

Monaghan Mental Hospital.—Heating installation in wards 10 and 11. J. P. Tierney and Co., consulting engineers, 44, Kildare-st., Dublin, C.17. Dep. £5 5s.

Monaghan Mental Hospital Committee.—Electrical installation in new hospital and nurses' home. Nicholas O'Dwyer, Consulting E., 6, Burlington-rd., Dublin. Dep. £5 5s.

Wallasey C.B.—External painting to 270 houses on Gorsedale-rd. estate, and 10 houses on School-la. estate, and decorations to approx. 50 houses on various Corporation estates. B.E. and S.

West Riding C.C.—Stepping of slope leading up to girls' entrance and for provision of fuel shovelling platform, etc., at Earby (Alder-hill) modern school. H. Marsden, Divisional Clerk, Education Office, Skipton.

APRIL 18.

Cheadle R.D.C.—External painting and decorations to 124 houses at various housing sites. J. W. Burton, E. and S.

Southport C.B.—Painting structures on Foreshore, the Pier and at Ainsdale Lido. B.E.'s Office. Dep. £1 1s.

APRIL 19.

Spalding R.D.C.—External painting of Council houses in various parishes. F. B. Saunders, architect, Holyrood House, Churchgate, Spalding.

APRIL 20.

Blofield and Flegg R.D.C.—External painting of 180 houses. L. McRoberts, C., Acle, Norwich.

Bolton-on-Dearne Working Men's Club.—Painting and decorating interior of club premises. L. Harrison, Sec.

Breconshire C.C.—Heating installation at Ystradgynlais police station. H. C. W. Strickland, County Architect, Watton Offices, Brecon.

APRIL 22.

Bilston T.C.—Internal redecorations and external painting, of 102 houses, Lunt estate. W. G. Lofthouse (A.), Architect, Town Hall.

Darlington.—Redecorating and painting A.S.E. Club. Sec.

Wandle Valley Joint Hospital Board.—Repairs, painting, etc., at hospital, Beddington Corner, Mitcham Junction. E. W. Gunner, C. to Board, at Hospital.

MATERIALS, &c.

The materials for which tenders are invited normally include one or several of the following —asphalt, bricks, brooms, building lime, cast-iron pipes, cement, stoneware pipes, granite chippings, granite kerbs, gravel, gulleys, lime, manhole covers, painters' materials, plumbers' materials, road stone, slates, sand, stone, tar, tarslag and bituminous macadam, timber, and whinstone screenings. Readers should obtain full particulars by personal inquiry.

APRIL 16.

Birkenhead T.C. — B. Electrical E., Craven-st.

Straits Settlements.—Steel straight pipes and specials for Singapore Municipality Water Dept. Municipal Secretary, Municipality, Singapore. Dept. of Overseas Trade. (Ref. T. 17198/40.)

APRIL 17.

Berwick-upon-Tweed T.C.—B.S.

Bideford T.C.—B.S.

Lowestoft T.C.—F. G. Southgate, B.E. and S.

APRIL 19.

Motherwell T.C.—B.S.

APRIL 20.

Inverness-shire C.C.—C.S., Inverness.

APRIL 22.

Litherland U.D.C.—G. Ponsford, E. and S.

Manchester T.C.—Chairman, Central Purchasing Committee, Town Hall.

Silsden U.D.C.—S.

ENGINEERING, IRON AND STEEL.

APRIL 17.

Ennerdale R.D.C.—Laying of approx. 4,560 yds. spun-iron pipes, together with construction of mass concrete reservoir 96,000-gal. at Moresby. E. Dep. £2 2s.

Fife C.C.—Providing and laying 2,300 lin. yds. of 12-in. dia. and 4,100 lin. yds. of 9-in. dia. steel water main, with valves, and other relative works, from Touch to Castlandhill. H. F. Hodge, C.E., 34, Viewfield-tee., Dunfermline. Dep. £1 1s.

APRIL 18.

South African Railways and Harbours Administration. — 1 42,000-gallon pressed steel tank. Chief Stores Superintendent, Rissik-st., Johannesburg. Dept. of Overseas Trade, S.W.1. (Ref. T. 16787/40.)

APRIL 19.

Basingstoke.—Alterations to sewage works, Park Prewett Hospital, Basingstoke. John Taylor and Sons, engineers, Caxton House, Westminster, S.W.1. Dep. £5.

Huntingdon R.D.C. — Pipes, etc., for Sawtry and Conington water supply. Pick, Everard, Keay and Gimson, engineers, 6, Millstone-la., Leicester. Dep. £2 2s.

North Riding C.C.—Approx. 252 cwt. of riveted steelwork in roof trusses, etc., for agricultural implement shed, Boroughbridge-rd., Northallerton. R. Sawtell, C.S., Northallerton.

Totnes R.D.C.—For Avonwick water supply, contract No. 1. Lemon and Blizard, consulting engineers, 24, Lockyer-st., Plymouth. Dep. £3 3s.

APRIL 20.

Great Yarmouth C.B.—Heat installation work at infirmary. P. D. Walmsley, Consulting E., 40, King-st.

APRIL 22.

Burnham-on-Sea U.D.C.—Covered reinforced concrete service reservoir and provision, at Brent Knoll, laying and jointing of mains. Wilcox, Raikes and Marshall, engineers, 33, Great Charles-st., Birmingham, 3. Dep. £5 5s.

NO DATE.

Iranian Government.—Harbour works at Bandar Chahpour. Commercial Attache, 10-13, Dominion-st., London, E.C.2.

ROAD, SEWERAGE AND WATER WORKS.

APRIL 16.

Bournemouth C.B.—Making-up Home-rd.; back roads rear east and west side of Clarence Park-rd.; back road rear Scotter-rd.; and back road rear Christchurch-rd. (Droxford-rd. to Hambledon-rd.). B.E. Dep. £1 1s.

Colne Valley Sewerage Board.—Contract S.4.A. for about 2,600 lin. yds. of 75-in. and 72-in. dia. sewers in open trench and tunnel, together with manholes and other appurtenant works. Sandford Fawcett and Partners, consulting engineers, 53, Victoria-st., Westminster. Dep. £10 10s.

Stockport T.C.—Making-up Reddish Vale-rd. and Margate-rd. W. F. Gardner, B.S.

West Riding C.C.—Re-asphalting of playgrounds at Thorpe Council school. P. Beaumont, Divisional Clerk, 8, St. John's North, Wakefield.

APRIL 17.

Colwyn Bay T.C.—Tarpainting and spreading of chippings on roads approx. 150,000 sq. yds., and supply of approx. 2,500 tons of chippings and approx. 40,000 gal. of refined tar and compound. N. S. Jeffrey. B.E. and S.

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Hepton R.D.C.—Outfall sewer from Acre Mill to Hurst Royd, comprising about 1,000 lin. yds. of 6-in. fireclay pipe sewers, together with necessary manholes, storm overflow, etc. C. H. Marriott, Son and Shaw, engineers, Northgate-chams., Dewsbury. Dep. £2 2s.

Reigate T.C.—Reigate drainage contract No. 8 for reconditioning certain lengths of existing egg-shaped brick sewers. G. B. Kershaw and Kaufman, chartered civil engineers, Ladymead, Bassetsbury-la., High Wycombe. Dep. £10.

APRIL 18.

Redcar T.C.—Surface dressing of roads. B.E.

APRIL 19.

Leatherhead U.D.C.—Supplying and laying approx. 11,300 sq. yds. single-coat asphalt and supplying approx. 500 tons bituminous macadam, ¾ in.-¼ in. granite toppings. H. C. Hodges.

Manchester.—Supply of 133 standpipes for use of auxiliary fire service, for T.C. J. Maxwell, chief constable, Police Headquarters.

Tenterden R.D.C.—Reconstruction of footpaths to council houses. H. Parks, S., "Hillside."

APRIL 20.

Kingston-upon-Thames T.C. — Surface dressing approx. 182,000 sq. yds. of roads. B.S. Dep. £1 1s.

Reigate T.C.—Surface dressing approx. 210,000 yds. super. surface. B.S.

Winchester T.C.—Reconstruction of East-gate-st. and Union-st. P. H. Warwick, City E. and S. Dep. £1 1s.

APRIL 22.

Coulsdon and Purley U.D.C.—Making-up Mitchley-av., Sanderstead, between Riddlesdown-rd. and Rectory Park. S. Dep. £2 2s.

Manchester Corporation. — Reconditioning of 30-in. dia. water main. Sec., Waterworks Offices, Town Hall.

Sutton and Cheam T.C.—Surface dressing of approx. 400,000 sq. yds. of roads. N. H. Michell, B.E. and S.

Public Appointments.

APRIL 23.

***Lincoln T.C.**—Manager, Corporation's Building Dept. A. Adlington, City E. and S., Silver-st.

APRIL 25.

***Glamorganshire C.C.** — Drainsman at Hensol Castle Certified Institution for Mental Defectives, near Pontyclun. D. J. Parry, Deputy Clerk, County Hall, Cardiff.

NEW BUILDINGS IN LONDON

ELTHAM.—HOUSES.—The Woolwich B.C. has approved plans submitted by Messrs. C. & J. Edwards, Estate Office, Crown-court, Horn Park-lane, S.E.12, for four houses on the west side of Westhorne-avenue, corner Sidcup-road.

HESTON AND ISLEWORTH.—DWELLINGS.—T.C. to apply to M. of H. for permission to erect dwellings for aged persons.

KINGSTON.—REBUILDING.—Work has recently started on the rebuilding of the "Cocoanut" public-house at Mill-street, for Messrs. Charrington & Co., Ltd., Anchor Brewery, Mile End-road, E.1. The contractors are Messrs. C. Uden & Co., 33, South-street, Epsom.

Obituary: F. Cottrell.

We regret to record the death, at Honiton, on April 7, at the age of 88 years, of Mr. F. Cottrell, for many years governing director of Messrs. F. Cottrell, Ltd., builders and contractors, of Crouch End, N.8.

Mr. Cottrell may be said to have been the father of the building industry in Crouch End, for it was over sixty years ago when he came to develop the large estate known as Crouch Hall. At that period Crouch End was a hamlet with only a few large houses. In addition he was responsible for the development of other large estates around London, and his name was well known as a building contractor.

Mr. Cottrell was active in business until three years ago, when he retired. He was a continuous reader of *The Builder* during the whole of his building life, even to within a few weeks of his death.

CURRENT AND PROPOSED BUILDING WORK*

Accrington.—Massey's Burnley Brewery, Ltd., Bridge End Brewery, propose alterations at "Crown Inn," Church-st. Architects, Taylor, Son & Platt, Manchester-rd.

Alfreton.—Derbyshire E.C. propose to rebuild portion of Newton Council school, Blackwell, recently destroyed by fire. Plans by J. Harrison (A.), County Architect, St. Mary's Gate, Derby.

Beddington and Wallington.—T.C. approved: Mitcham Works, Ltd., store-shed adjoining existing factory.

Billingham-on-Tees.—J. H. Hill, S. to U.D.C., to submit estimate for carrying out 96 privy conversions at Wolviston by direct labour.

Birmingham.—Church Army to construct canteen, Snow Hill station, at £250.—T.C. to proceed with completion of 30 partly constructed houses, Lea Hall estate, and 78 houses, Kent's Moat estate.—T.C. to adapt basements, Pitman-bldgs., Corporation-st., for shelters, at £1,660.—Charlesworth's Mouldings, Ltd., propose to extend factory, Northcote-rd., Stechford.—A. Edwards, 115, Colmore-row, architect for proposed alterations, etc., St. George's C.E. school, Great Russell-st.

Bootle.—T.C. propose extension of police buildings and offices. Plans by W. A. Harrison, E. and S.

Bradford.—Directors of Leeds and Wakefield Breweries, Ltd., Melbourne Brewery, North-st., Leeds, propose hotel, Chellow Grange-rd. Architects and Surveyors, James Young & Co., 49, Bank-st.

Brighton.—T.C. approved: Alterations and additions, St. John the Baptist Presbytery, 2, Bristol-rd., Rev. Father A. S. Flanagan; church building, Downsway, junction with Warren-rd., Wick estate, Woodingdean, Rottingdean, Rev. A. E. Whittle; internal alterations to form offices and caretaker's flat on top floor, 138, Queen's-rd., Barclays Bank, Ltd.

Bromsgrove.—Board of Management, North Worcestershire Joint Hospital Board, propose improvement to laundry at Hayley Green Hospital. Architects, Folkes & Folkes, 34, Hagley-rd., Stourbridge.

Burtonwood.—Lancashire E.C. approved scheme for extensions to Council school. S. Wilkinson (F.), County Architect, Preston.

Caernarvon.—T.C. to erect a filter house, Ystpytty reservoir. Ll. & T. H. Lloyd Jones, consultants, Lloyds Bank-chambs.

Carlisle.—Sketch plans for technical college to be forwarded by E.C. to B., of E. for approval. P. Dalton, City E., 18, Fisher-st., prepared plans.

Cheshunt.—U.D.C. approved £350 for strengthening works and general repairs to Elm Arches.

Chesterfield.—Licensing Justices approved structural alterations, "Red Lion" inn, Vicar-la. Architects, Wigfull, Inott & Ridgeway, 14, Parade-chambs., Sheffield, 1.

Corby.—U.D.C. propose fire station rear Council's premises in Kelvin-gr. Plans by D. W. Greaves, S.

Coventry.—T.C. approved reconstruction and improvement of roads, as follows: First section—Banner-la., £18,750; Brownshill Green-rd., £19,000; and Windmill Hill, £10,000. Second section—Broad-la. East, £16,000; Tile Hill-la, £11,000; and roads across Hearsall Common, £42,000.—Housing Committee to take immediate action regarding scheme for erection before Christmas next of 2,000 new houses, together with a certain number of guild houses for accommodation of young workers.

Coventry.—E.C. received sanction of B. of E. for completion of Stoke Park secondary school.—T.C. proposes omnibus garage, Tile Hill-la. and Torrington-av, Stoneleigh estate. Plans by City Architect. Estimated cost, £50,000.

Dartford.—Clerk to R.D.C. to prepare an estimate for painting and distempering 226 houses.

Deptford.—B.C. approved: Charrington & Co., Ltd., 86, Fenchurch-st., E.C.3, alterations, "Duke of Edinburgh" p.-h., 81, Malpas-rd.

Doncaster.—Workmen of Doncaster Amalgamated Collieries, Ltd., propose installation of pithead baths, Bullcroft Main Colliery.

Durham.—R.D.C. asked M.H. to sanction 208 houses at Bowburn, Quarrington Hill, and West Rainton, at £85,000. Plans by Housing Architect, Council Offices, Byland Lodge, Durham.

Eston.—U.D.C. propose bungalows and shelter accommodation for aged persons, Grangetown housing estate. Architect, E. Lomas, Council Offices.

Finsbury.—B.C. approved factory buildings, 34, Graham-st.

Flintshire.—E.C. propose to proceed with infants' department only of the new junior school, Flint, at £12,000. R. G. Whitley (L.), County Architect, Mold.

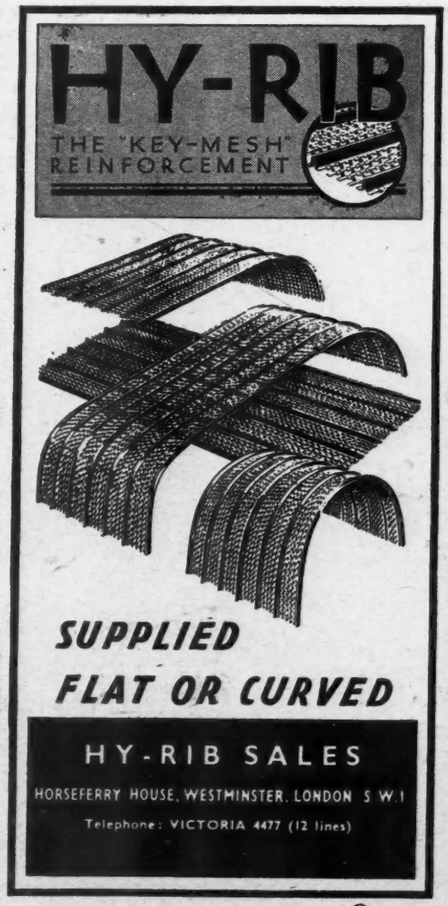
Grimsby.—T.C. approved additions to factory, rope walk, mess room, etc., south of Sixhill-st., Great Grimsby Coal, Salt and Tanning Co., Ltd.

Kingston.—T.C. approved: 10, 12, 14 and 16, Castle-st., alterations.

Lewisham.—B.C. approved: H. Kennard, Ltd., one-storey brick building at Century wks.

Liverpool.—Peter Walker & Son (Warrington and Burton), Ltd., 105, Duke-st., propose reconstruction of "Abercromby Hotel," Mount Pleasant. A. Ernest Shennan (F.), architect, North House, North John-st.

Lowestoft.—T.C. approved: W. J. Croft, Ltd., extension of factory, Thurston-rd.



4-443A

Manchester.—City E. to invite tenders for proposed sewage disposal scheme for Barton airport.—Additions to works for packing-case store, and electricity sub-station, Chatham-st., Clayton, for Clayton Aniline Co., Ltd., Clayton. Plans by own staff.

Manchester.—T.C. approved: Ford Motor Co., Dagenham, to erect works, Barton end of Trafford Park. Plans prepared by Engineering Staff, Dagenham.

Middlesex.—Works for C.C.:—Construction of 60 ft. of concrete walling to support Woodlands-rd., Isleworth, £180—120 ft. of concrete wall by Hemming-rd., Edgware, £240—120 ft. of concrete walling between Ledbury-dr. and Preston-rd., Wembley, £260—80 ft. of concrete wall at Ravenscroft-av., Wembley, £210—diversion of stream at Farm-rd., Edgware, £120.—Council agrees to proceed with proposed improvement of Wembley Brook between Elspeth-rd. and Union-rd., Wembley, at £20,000.—Work to complete section of Hampton branch sewer between Hampton-wks. and Hollybush-la., to be proceeded with.—Animal house to be provided at Harefield Sanatorium, at £395.

Nocton.—Lincolnshire Flax Co., Ltd., Metheringham Heath Farm, proposing new flax factory. Architect, Percy V. Burnett (F.), 107, Jermyn-st., London, S.W.1.

Northampton.—Parks Superintendent to arrange for necessary repairs to tile surrounds to lakes in Abington Park, at £146.—T.C. to invite tenders for removal of existing boiler and any necessary works of reconstruction at transport depot.—Plans passed: Conversion of premises into bacon-curing factory, 29, St. Katherine's-st., W. H. Thomas; alterations and new wing, Grand Hotel, Gold-st., Northampton Brewery Co., Ltd.; extension factory, Balfour-rd., Northampton Machinery Co., Ltd.; commercial garage, Bedford-rd., N. D. Bell.

Rochdale.—Manor Brewery Co., Ltd., Molesworth-st., proposed alterations, "Rising Sun" p.-h., Cheetham-st. Architect, T. Townend, District Bank-chambs., Fleece-st.—Higson's Brewery Co., Ltd., 117, Dale-st., Liverpool, propose structural alterations, "Wellington" hotel, Drake-st. and Smith-st. Architect, H. H. Clough, Old Market-chambs.

Rochdale.—Justices approved alterations, "Talbot Inn," Baillie-st., for Higson's Brewery, Ltd., 117, Dale-st., Liverpool. Architect, H. H. Clough.

Rugeley.—Licensing Justices approved rebuilding "Red Lion," Market-st., City Brewery Co. (Lichfield), Ltd., 7, Lovatt-st., Wolverhampton. Plans by resident architect.

Smethwick.—T.C. propose extensions to fire station. Application to be made to M.H. for loan of £10,478.

Staveley.—Duncan Gilmour & Co., Dixon-la., propose structural alterations, "Canal Tavern," Barrow Hill. Wilcockson & Cutts, architects, Saltergate, Chesterfield.

Stourbridge.—T.C. proposes mortuary at premises of Vauxhall Clothing Co.

Tynemouth.—T. A. Page, Son and Bradbury, 75, King-st., South Shields, prepared plans for alterations to "Ridges Inn," Waterville-rd., for McEwan and Co., Ltd.—T.C. to proceed with culverting Red Burn, at £600.

Walthamstow.—B.E. and S. to provide fencing at Higham estate, at £250.—Council given permission to Holmes Bros., Ltd., to erect a new fence in Billet-road.—£6,000 for renovations and £2,000 for external repairs approved.

Walsall.—Lichfield Brewery Co., Ltd., Burton-on-Trent, propose rebuilding "Market Tavern," Freer-st. W. Blair (A.), architect, Premises Department, 120, Station-st., Burton-on-Trent.

Warwick.—T.C. approved: Lift and corridor, Warwick Hospital, Lakin-rd., Warwickshire C.C.; mess room and store, Millers-rd., Normant Engineering Co., Ltd.; turbine room extensions, Avon power station, Leicestershire and Warwickshire Electric Power Co., Ltd.

Wolverhampton.—B.S. to proceed with plans for mortuary, New Cross institution, for T.C.

* See also List of Contracts Open.

***** In these lists every care is taken to ensure that information given is accurate and up to date, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced.**

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1940

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Craftsmen.	Labourers.
Aberavon	1/8½	1/3¾
Aberdare	1/8½	1/3¾
Abergavenny	1/8½	1/3¾
Abingdon	1/7	1/2¾
Accrington	1/8½	1/3¾
Aldeburgh	1/5	1/1
Aldershot	1/7	1/2½
Alfreton	1/8½	1/3¾
Alnwick	1/8	1/3¼
Altrincham	1/8½	1/3¾
Amble	1/8	1/3¼
Amersham	1/7	1/2½
Ammanford	1/8½	1/3¾
Andover	1/6½	1/2¼
Ardingley	1/6½	1/2½
Arundel	1/6½	1/2¼
Ascot	1/6½	1/2¼
Ashby-de-la-Zouch	1/8½	1/3¾
Ashford (Kent)	1/6½	1/2¼
Ashford (Middlesex)	1/8½	1/3¾
Ashington	1/8	1/3¼
Ashtead	1/8½	1/3¾
Ashton-under-Lyne	1/8½	1/3¾
Aylesbury	1/6½	1/2¼
Aylsham	1/5½	1/1½
Bagshot	1/6½	1/2¼
Banbury	1/6½	1/2¼
Barnsley	1/8½	1/3¾
Barnstaple	1/6½	1/2¼
Barrow-in-Furness	1/8½	1/3¾
Barry	1/8½	1/3¾
Basingstoke	1/6½	1/2¼
Bath	1/8	1/3¼
Batley	1/8½	1/3¾
Beaconsfield	1/7	1/2½
Beccles	1/5	1/1
Bedford	1/8	1/3¼
Berkhamsted	1/6½	1/2¼
Berwick	1/8	1/3¼
Beverley	1/8½	1/3¾
Bexhill-on-Sea	1/7	1/2½
Bideford	1/6½	1/2¼
Biggleswade	1/6½	1/2¼
Billericay	1/6	1/1½
Birchington	1/6½	1/2¼
Birkenhead	‡§1/10½	¶
Birmingham†	1/8½	1/3¾
Bishop Auckland	1/8½	1/3¾
Bishops Stortford	1/7½	1/3
Blackburn	1/8½	1/3¾
Blackpool	1/8½	1/3¾
Blyth	1/8½	1/3¾
Bognor Regis	1/6½	1/2¼
Bolton	1/8½	1/3¾
Bournemouth	1/7½	1/3
Bracknell	1/6½	1/2¼
Bradford	1/8½	1/3¾
Bradford-on-Avon	1/5½	1/1½
Braintree	1/6½	1/2¼
Brentwood	1/8	1/3¼
Bridgwater	1/7	1/2½
Bridlington	1/8	1/3¼
Brighouse	1/8½	1/3¾
Brighton	1/7½	1/3
Bristol	1/8½	1/3¾
Broadstairs	1/6½	1/2¼
Bromsgrove	1/8	1/3¼
Buckley	1/8½	1/3¾
Bungay	1/4½	1/0½
Burnham-on-Crouch	1/5	1/1
Burnley	1/8½	1/3¾
Burslem	1/8½	1/3¾
Burton-on-Trent	1/8½	1/3¾
Bury	1/8½	1/3¾
Bury St. Edmunds	1/6	1/1½
Buxton	1/8	1/3¼
Byfleet	1/7	1/2½
Cambridge	1/8½	1/3¾
Canterbury	1/6½	1/2¼
Cardiff	1/8½	1/3¾
Carlisle	1/8½	1/3¾
Carnforth	1/8½	1/3¾
Castleford	1/8½	1/3¾
Caterham	1/8½	1/3¾
Chard	1/5½	1/1½
Chatham	1/7½	1/3
Chelmsford	1/8	1/3¼
Cheltenham	1/7½	1/3
Chepstow	1/8	1/3¼
Chertsey	1/7½	1/3
Chester	1/8½	1/3¾
Chesterfield	1/8½	1/3¾
Chichester	1/6½	1/2¼
Chorley	1/8½	1/3¾
Cirencester	1/6	1/1½
Clacton	1/6½	1/2¼
Cleveleys	1/8½	1/3¾
Clitheroe	1/8½	1/3¾
Cobham (Surrey)	1/7½	1/3
Colchester	1/8	1/3¼
Colwyn Bay	1/7½	1/3
Congleton	1/8	1/3¼
Coventry	1/8½	1/3¾
Cranbrook	1/6½	1/2¼
Cranleigh	1/6½	1/2¼
Crawley	1/6½	1/2¼
Crewe	1/8	1/3¼
Cromer	1/5½	1/1½
Crowborough	1/6½	1/2¼
Cuckfield	1/6½	1/2¼
Darlington	1/8½	1/3¾
Darwen	1/8½	1/3¾
Daventry	1/7	1/2½
Deal	1/6½	1/2¼
Denbigh	1/7½	1/3
Derby	1/8½	1/3¾
Devizes	1/5½	1/1½
Dewsbury	1/8½	1/3¾
Didcot	1/6½	1/2¼
Diss	1/5	1/1
Doncaster	1/8½	1/3¾
Dorchester	1/6	1/1½
Dorking	1/7	1/2½
Dover	1/6½	1/2¼
Dovercourt	1/6½	1/2¼
Driffield	1/7	1/2½
Droitwich	1/8	1/3¼
Dudley	1/8½	1/3¾
Dunstable	1/7	1/2½
Durham City	1/8½	1/3¾
Eastbourne	1/7½	1/3
E. Glam. (Mon. Val.)	1/8½	1/3¾
East Grinstead	1/6½	1/2¼
Edenbridge	1/6½	1/2¼
Ely	1/5½	1/1½
Epping	1/8½	1/3¾
Exeter	1/8	1/3¼
Exmouth	1/7	1/2½
Fakenham	1/5½	1/1½
Falmouth	1/7	1/2½
Fareham	1/7½	1/3
Faversham	1/6½	1/2¼
Felixstowe	1/7½	1/3
Filey	1/7	1/2½
Fleetwood	1/8½	1/3¾
Flint	1/8½	1/3¾
Folkestone	1/6½	1/2¼
Frinton-on-Sea	1/6½	1/2¼
Frome	1/5½	1/1½
Gainsborough	1/7½	1/3
Gateshead	1/8½	1/3¾
Gillingham (Kent)	1/7½	1/3
Glossop	1/8½	1/3¾
Gloucester	1/8	1/3¼
Godalming	1/6½	1/2¼
Goole	1/8½	1/3¾
Gosport	1/8	1/3¼
Grantham	1/7½	1/3
Gravesend	1/8	1/3¼
Great Yarmouth	1/6½	1/2¼
Grimsby	1/8½	1/3¾
Guildford	1/6½	1/2¼
Guilsborough	1/7	1/2½
Halifax	1/8½	1/3¾
Hanley	1/8½	1/3¾
Harpenden	1/7½	1/3
Harrogate	1/8½	1/3¾
Hartlepools	1/8½	1/3¾
Harwich	1/6½	1/2¼
Haslemere	1/6½	1/2¼
Hastings	1/6½	1/2¼
Hatfield	1/8	1/3¼
Haywards Heath	1/6½	1/2¼
Hednesford	1/8	1/3¼
Hemel Hempstead	1/7½	1/3
Henley-on-Thames	1/6½	1/2¼
Hereford	1/6½	1/2¼
Herne Bay	1/6½	1/2¼
Hertford	1/8	1/3¼
Heysham	1/8½	1/3¾
Hitchin	1/7½	1/3
Hoddesdon	1/8	1/3¼
Holt (Norfolk)	1/5	1/1
Horley	1/6½	1/2¼
Horsham	1/6½	1/2¼
Horwich	1/8½	1/3¾
Huddersfield	1/8½	1/3¾
Hull	1/8½	1/3¾
Hunstanton	1/5½	1/1½
Huntingdon	1/6	1/1½
Ilfracombe	1/6½	1/2¼
Ingatestone	1/7	1/2½
Ipswich	1/8	1/3¼
Isle of Thanet	1/6½	1/2¼
Isle of Wight	1/6	1/1½
Keighley	1/8½	1/3¾
Kenilworth	1/8½	1/3¾
Kettering	1/8½	1/3¾
Kidderminster	1/8	1/3¼
King's Lynn	1/6½	1/2¼
Kirkham	1/8½	1/3¾
Knowle	1/8	1/3¼
Lancaster	1/8½	1/3¾
Leamington	1/8½	1/3¾
Leatherhead	1/7½	1/3
Leeds	1/8½	1/3¾
Leicester	1/8½	1/3¾
Leighton Buzzard	1/5½	1/1½
Letchworth	1/7½	1/3
Lewes	1/6½	1/2¼
Lichfield	1/7½	1/3
Lincoln	1/8½	1/3¾
Littlehampton	1/6½	1/2¼
Liverpool	‡§1/10½	¶
Llandudno	1/7½	1/3
Llanelly	1/8½	1/3¾
London—		
12m. radius	1/10*	1/4½
12-15 m. radius	1/9½*	1/4½
Long Eaton	1/8½	1/3¾
Longton	1/8½	1/3¾
Loughborough	1/8½	1/3¾
Louth	1/7	1/2½
Lowestoft	1/6½	1/2¼
Luton	1/8	1/3¼
Macclesfield	1/8	1/3¼
Maidenhead	1/7½	1/3
Maidstone	1/7	1/2½
Malvern	1/7	1/2½
Manchester	1/8½	1/3¾
Manningtree	1/5½	1/1½
Mansfield	1/8½	1/3¾
March	1/5½	1/1½
Margate	1/6½	1/2¼
Market Harborough	1/7½	1/3
Matlock	1/7	1/2½
Melton Constable	1/5	1/1
Melton Mowbray	1/7½	1/3
Merthyr	1/8½	1/3¾
Middlesbrough	1/8½	1/3¾
Middleton	1/8½	1/3¾
Middlewich	1/8	1/3¼
Milford Haven	1/7	1/2½
Morecambe	1/8½	1/3¾
Morley	1/8½	1/3¾
Mundesley	1/5½	1/1½
Nantwich	1/8	1/3¼
Nelson	1/8½	1/3¾
Newark-on-Trent	1/8	1/3¼
Newbury	1/6½	1/2¼
Newcastle-on-Tyne	1/8½	1/3¾
Newcastle-u.-Lyme	1/8½	1/3¾
New Forest	1/6½	1/2¼
Newmarket	1/6½	1/2¼
Newport, Mon.	1/8½	1/3¾
Newport Pagnell	1/6½	1/2¼
Northampton	1/8½	1/3¾
Norwich	1/8½	1/3¾
Nottingham	1/8½	1/3¾
Nuneaton	1/8½	1/3¾
Oakham	1/7	1/2½
Oldham	1/8½	1/3¾
Ormskirk	1/8½	1/3¾
Oxford	1/8	1/3¼
Oxted	1/7	1/2½
Paignton	1/8	1/3¼
Peterborough	1/8	1/3¼
Plymouth	1/8½	1/3¾
Pontefract	1/8½	1/3¾
Pontypridd	1/8½	1/3¾
Port Talbot	1/8½	1/3¾
Portsmouth	1/8	1/3¼
Preston	1/8½	1/3¾
Pulborough	1/6½	1/2¼
Ramsgate	1/6½	1/2¼
Reading	1/8	1/3¼
Redditch	1/8	1/3¼
Redhill	1/7	1/2½
Ripon	1/7	1/2½
Rochdale	1/8½	1/3¾
Rochester	1/7½	1/3
Rugby	1/8½	1/3¾
Saffron Walden	1/5½	1/1¼
St. Albans	1/8	1/3¼
St. Helens	1/8½	1/3¾
St. Neots	1/6	1/1½
Salisbury City	1/6	1/1½
Salisbury Plain	1/7½	1/3
Sawbridgeworth	1/7	1/2½
Saxmundham	1/5	1/1
Scarborough	1/8	1/3¼
Scunthorpe	1/8½	1/3¾
Selby	1/8½	1/3¾
Sevenoaks	1/7	1/2½
Sheerness	1/6½	1/2¼
Sheffield	1/8½	1/3¾
Shipley	1/8½	1/3¾
Shoeburyness	1/8	1/3¼
Shoreham	1/7½	1/3
Shrewsbury	1/8	1/3¼
Sittingbourne	1/6½	1/2¼
Skegness	1/7½	1/3
Sleaford	1/7	1/2½
Slough	1/7½	1/3
Southampton	1/8	1/3¼
Southend-on-Sea	1/8	1/3¼
Southport	1/8½	1/3¾
South Shields	1/8½	1/3¾
Spalding	1/6½	1/2¼
Stafford	1/8	1/3¼
Staines	1/7½	1/3
Stamford	1/7½	1/3
Stevenage	1/7½	1/3
Stockport	1/8½	1/3¾
Stockton-on-Tees	1/8½	1/3¾
Stoke-on-Trent	1/8½	1/3¾
Stourbridge	1/8½	1/3¾
Stourport	1/8	1/3¼
Stowmarket	1/5½	1/1½
Stratford-on-Avon	1/7½	1/3
Stroud	1/7½	1/3
Sunderland	1/8½	1/3¾
Sutton Coldfield	1/8½	1/3¾
Swaffham	1/5	1/1
Swanage	1/6½	1/2¼
Swansea	1/8½	1/3¾
Swindon	1/7	1/2½
Tamworth	1/8	1/3¼
Taunton	1/7	1/2½
Tenterden	1/6½	1/2¼
Thames Haven	1/8½	1/3¾
Thetford	1/6	1/1½
Thorpe Bay	1/8	1/3¼
Todmorden	1/8½	1/3¾
Tonbridge	1/7	1/2½
Torquay	1/8	1/3¼
Totnes	1/6½	1/2¼
Trowbridge	1/5½	1/1½
Truro	1/6	1/1½
Tunbridge Wells	1/7	1/2½
Uppingham	1/7	1/2½
Uttoxeter	1/7	1/2½
Wakefield	1/8½	1/3¾
Walsall	1/8½	1/3¾
Walsden	1/8½	1/3¾
Walton-on-Naze	1/6½	1/2¼
Ware	1/8	1/3¼
Warminster	1/5½	1/1½
Warrington	1/8½	1/3¾
Warwick	1/8½	1/3¾
Wellingborough	1/8	1/3¼
Welwyn	1/7½	1/3
Welwyn Gar. City	1/8½	1/3¾
Wells (Norfolk)	1/5	1/1
West Bromwich	1/8½	1/3¾
Westcliff-on-Sea	1/8	1/3¼
Weston-super-Mare	1/7½	1/3
Weybridge	1/7½	1/3
Weymouth	1/6½	1/2¼
Whitby	1/7½	1/3
Whitstable	1/6½	1/2½
Widnes	1/8½	1/3¾
Wigan	1/8½	1/3¾
Wigton	1/7	1/2½
Willington	1/8	1/3¼
Wilmslow	1/8½	1/3¾
Winchester	1/7	1/2½
Windermere	1/7	1/2½
Windsor	1/7½	1/3
Wisbech	1/6	1/1½
Witham	1/6½	1/2¼
Woking	1/7	1/2½
Wokingham	1/6½	1/2¼
Wolverhampton	1/8½	1/3¾
Woodbridge	1/6	1/1½
Worcester	1/8	1/3¼
Workington	1/7	1/2½
Worksop	1/8	1/3¼
Worthing	1/6½	1/2¼
Wrexham	1/8	1/3¼
Wroxham	1/6	1/1½
Wycombe	1/7½	1/3
Wymondham	1/5½	1/1½
Yeovil	1/7	1/2¼
York	1/8½	1/3¾

* Painters 1d. less than other Craftsmen. † Plus 2d. per working day. ‡ Plasterers 1/11.
¶ Tradesman's Labourers 1/4½. Navvies and General Labourers 1/4½.
§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

For Building Trade Wages in Scotland, see page 462.

PRICES CURRENT OF MATERIALS*

Note: Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry.
The softwood prices are the maxima established by the Timber Control Department.
At present linseed oil and genuine spirits of turpentine can only be supplied in cans in small quantities.
Lead can only be obtained for Government or A.R.P. work and urgent repairs.

BRICKS, &c.

Delivered to site, City and Central Area, Full Lorry Loads.

	£ s. d.
Best Stocks	4 15 0
Second Hard Stocks	4 8 0

Per 1,000. Delivered at London Goods Stations.

2½ in. Phorpres.	King's Cross Station. per 1,000. s. d.	To sites in W.C. District. per 1,000. s. d.
Pressed bricks	46 3	50 6
Cellular bricks	46 3	50 6
Keyed bricks	48 3	52 6
Cellular Keyed bricks	48 3	52 6
Rustic bricks	*66 3	*70 6
Cellular Rustic bricks	*66 3	*70 6
Single Bullnose	64 3	68 6
White bricks	*66 3	*70 6
Sandfaced bricks	—	75 6

* Subject to a special discount of 2s. per 1,000 ft. accompanied by order for Pressed.

	£ s. d.
White Midhurst Facing Bricks (delivered London site)	3 12 6
Best blue Pressed Staffs	8 6 6
Do. Bullnose	8 16 6
Blue Wire Cuts	7 4 0

Best Stourbridge Fire Brick :—
2½ in. ..... 7 15 0 3 in. 8 15 0

GLAZED BRICKS—

Best White Ivory and Salt Glazed Stretcher	24 0 0	D'ble Str'tch'rs	32 10 0
		D'ble Headers	29 10 0
Headers	23 10 0	One side & two ends	33 10 0
		Two sides & one end	34 10 0
Quoins, Bullnose and 4½in. Flats	30 10 0	Splays and Squints	31 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

2" per yd. sup.	2 3	3" per yd. sup.	2 9
2½" " "	2 6	4" " "	3 1

CLINKER CONCRETE.

2" per yd. sup.	1 6	3" per yd. sup.	2 0
2½" " "	1 8	4" " "	2 4

CRANHAM TERRA COTTA.

2" per yd. sup.	3 0	3" per yd. sup.	3 8
2½" " "	3 6	4" " "	4 7

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 6	12" x 9" x 3"	3 0
12" x 9" x 2½"	2 9	12" x 9" x 4"	3 9

Per yard super d/d. Free on site, London.

SAND.

Thames Ballast	7	9	per yd.
Pit Ballast	7	3	" "
Pit Sand	9	9	" "
Washed Sand	10	9	" "
¾in. Shingle	8	0	" "
¾in. Broken Brick	12	0	" "
Pan Breeze	8	3	" "

} delivered 2 miles radius Paddington.

CEMENT.

Best British Portland Cement. Standard Specification delivered London Area in jute sacks (11 to ton), or paper bags (20 to ton) free (non-returnable) :—

	£ s. d.
4 ton loads and upwards site ..... Per ton	2 5 0
1 ton to 4 tons site	2 8 0
Alongside Vauxhall in 80-ton lots	2 2 6

"Ferrocrete" Rapid Hardening Cement :—

4 ton loads and upwards site	2 11 0
1 ton to 4 tons site	2 14 0
Alongside Vauxhall in 80-ton lots	2 8 6

Stores in Reserved Bins at Works 1/6 ton extra.

NOTE.—Jute sacks are charged 1s. 6d. each and credited 1s. 6d. nett, if returned in good condition within three months, carriage paid.

"Aquacrete" Water Repellent, "Blue Circle" Cement, 30/- per ton extra on ordinary "Blue Circle" Portland Cement prices.

"Colorcrete" Nos. 1 and 2 Coloured Rapid Hardening Portland Cement in 1-cwt. paper bags free (non-returnable) in 1-ton lots and upwards site 3 15 0

"Colorcrete," not rapid-hardening, in 1-cwt. paper bags free (non-returnable), according to colour, from £7 to £15 10s. per ton.

"Snowcrete" White Portland Cement in 1-cwt. paper bags free (non-returnable)

1 ton and upwards site	8 15 0
Super Cement (Waterproof) paper bags free	3 15 0
Roman Cement £6 15 Keene's Cement, White	5 10 0
Parian Cement £5 10 " " Pink	5 2 6

Cementone Colours for cement according to tints per cwt. from £2 16s. 0d.

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	3 0 0	Sirapite, Coarse	3 10 0
" White	3 10 0	" Finish	3 18 0
Pioneer	3 10 6		
Super Carbo	2 7 6	4-ton loads and over London Area, paper bags free.	
Carbo Setting	2 12 6		
Best Ground Blue		Grey Stone Lime	2 2 0
Lias Lime	1 17 6	Chalk Lime	2 2 0
Granite Chippings	1 5 0	Hair per cwt.	2 7 6

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d., if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in sacks 37s. per ton at rly. dep.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube .... s. d. 2 10½

BEER STONE—RANDOM BLOCK—

Free on rail at Seaton Station. per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. "	3 1½

Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.

PORTLAND STONE—

	s. d.
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 5
Do. do. delivered on road waggons as above stations, per ft. cube	4 6

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.

HOPTON-WOOD STONE—

F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P.ft.cb.	14 0
Sawn two sides	22 6

HOPTON-WOOD STONE—

Sawn three or four sides	27 9

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super) ..... per ft. super	5 0
6 in. rubbed two sides, ditto .. "	5 6
3 in. sawn two sides slabs (random sizes) ..... "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) ..... "	1 6½
1½ in. to 2 in., ditto ..... "	1 3½

HARD YORK—
Delivered at any Goods Station, London.

Scrappled random blocks ..... per ft. cube	6 3
6 in. sawn two sides landings to sizes (under 40 ft. super) ..... per ft. super	5 1½
6 in. rubbed two sides, ditto .... "	6 1½
4 in. sawn two sides slabs (random sizes) ..... "	3 1½
3 in. ditto ditto ..... "	2 5
2 in. self-faced random flags ..... Per yd. super	7 6

CAST STONE.

Delivered in London are in full van loads, per ft. cube : Plain, 7s. 6d. Moulded, 8s. 6d. Sills, 10s. 0d.

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 17 0
Dry American and/or Japanese Figured Oak, per ft. cube ..... 10 0 to	0 12 6
Dry American and/or Japanese plain Oak, per ft. cube	0 11 6
Dry sq. edged Honduras Mahogany, per ft. cube	0 15 0
Dry log-cut Honduras Mahogany, per ft. cube ..... 12 6 to	0 16 0
Dry Cuba Mahogany, per ft. cube	0 18 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 6
Dry Australian Walnut, per ft. cube	0 17 0
Dry Queensland Silky Oak, per ft. cube	0 11 0
Dry African Mahogany, per ft. cube	0 10 0
Dry African Whitewood, per ft. cube	0 8 0
Dry English Wainscot Oak, per ft. cube	0 16 0
Best Scotch Glue, per cwt.	3 0 0
Liquid Glue, per cwt. ..... 4 7 0 to	5 10 0

SOFT WOOD.

GOOD BUILDING DEAL.

Inches.	Per stan.	Inches.	Per stan.
4 ×11	£38 10	3 × 6	£31 10
4 × 9	38 10	3 ×11	38 10
4 × 8	35 10	2 ×11	38 10
4 × 7	35 10	3 × 9	37 10
3 × 8	32 10	2½× 9	37 10
3 × 7	31 10	3 × 4½	30 0
2½× 7	31 10	3 × 4	30 0

Having secured the Contract— What about the Steel Scaffolding?

TUBULAR

SCAFFOLDING

For the lowest Prices apply to the Oldest Firm in The Scaffolding Trade.

STEPHENS & CARTER LTD.

The British Steel Scaffolding Co.

731-761, HARROW RD., N.W.10.

Telephone No. Ladbroke 1191 (6 lines).

PLANED BOARDS.

1 ×11	£43 10	1 × 9	£39 10

PLAIN EDGE FLOORING.

Inches.	Per sq.	Inches.	Per sq.
¾	22/6	1¼	38/-
¾	25/-	1½	42/6
1	28/6		

TONGUED AND GROOVED FLOORING. Inches.	Per sq.	MATCHING (BEST) Inches.	Per sq.
1	29/-	¾	23/-
1¼	38/6	¾	25/-
1½	43/-	1	29/-

Ins. BATTENS.	s. d.	SAWN LATHS.	s. d.
¾×2 per 100 ft.	2 9	Per bundle	2 6

SLATES.

First quality slates from Penrhyn or Portmadoc. carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12 ..	31 5 0	18 by 10	16 10 0
22 by 12 ..	26 5 0	18 by 9	14 17 6
22 by 11 ..	23 12 6	16 by 10 ..	14 7 6
20 by 12 ..	23 2 0	16 by 8 ..	11 6 0
20 by 10 ..	20 15 0		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons ..... Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	4 2 6
Ditto hand-made ditto	4 17 6
Ornamental ditto	5 2 6
Hip and valley tiles (per dozen) Hand-made	0 8 6
Machine-made	0 8 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R.S. Joists, cut and fitted	£18 0 0
Plain Compound Girders	20 10 0
" " Stanchions	23 0 0
In Roof Work	27 10 0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	18 10 0	⅝ in. to ½ in.	17 0 0
⅜ in.	17 10 0	¾ in. to 2¾ in.	16 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £10 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes. Sizes. ⅛in. to ⅜in. %	Sizes. ½in. to 2in. %	Standard Flanges. Sizes. ¼in. to 2in. %	Standard Fittings. %
Gas	60	65	62½	58½
Water	57	62½	62½	55
Steam	53½	58½	51½	50
Gal. gas	50	55	51½	48½
Galv. water	45	50	43½	43½
Galv. steam	38½	43½	38½	40

C.I. HALF-ROUND GUTTERS—London Prices ex Works—per yd. in 6 ft. lengths.

	Gutters.	Angles and Nozzles.	Stop-Ends.
3 in.	1/3½	1/0½	4d.
3½ in.	1/5	1/2½	4d.
4 in.	1/5	1/3½	5½d.
4½ in.	1/6	1/6	6½d.
5 in.	1/9½	1/7½	7½d.

O.G. GUTTERS.

3 in.	1/8½	1/5½	4½d.
3½ in.	1/10½	1/5½	5½d.
4 in.	1/10½	1/6	6½d.
4½ in.	1/11½	1/9	7½d.
5 in.	2/5½	2/-	9d.

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches. stock angles.
2 in.	1/11½	1/3½	1/11½
2½ in.	2/0½	1/6	2/3½
3 in.	2/5	1/10½	2/9½
3½ in.	2/10½	2/3	3/3
4 in.	3/3½	2/8½	3/11½

NETT PRICES.
Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices, ex Stock.

	Pipe.	Bends, stock angle.	Branches. stock angles.
2 in. per yd. in 6 fts.	3/3½	2/3½	2/9½
2½ in. "	3/11½	2/6½	3/6
3 in. "	4/2½	2/9½	4/2½
3½ in. "	4/3½	3/6	4/10½
4 in. "	4/8½	3/11½	5/7½

L.C.C. COATED DRAIN PIPES.—London Prices, ex Stock.

	Pipe.	Bends, stock angles.	Branches. stock angles.
3 in. per yd. in 9 ft. lengths	4/9½	5/11½	9/5½
cwt. qr. lbs.			
4 in. " 1 1 20	6/11	6/9	11/10½
5 in. " 1 2 22	8/5½	12/2	18/5
6 in. " 2 0 6	10/2	14/0½	23/0

Gaskin for jointing 65/- per cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who makes use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(*contd.*)

	Per ton basis in London. £ s. d.		£ s. d.
IRON.—Staffordshire Crown, Merchant quality	14 0 0	to	16 0 0
IRON—Staffordshire Marked Bars	17 5 0	to	19 5 0
Mild Steel Bars	15 17 6	to	17 7 6
Mild Steel Hoops	17 12 6	to	19 2 6

	Ex Merchant's Stock, per ton (two-ton lots). £ s. d.
Soft Steel Sheets, C.R. and C.A.—	
20 gauge	19 12 6
24 gauge	19 17 6
26 gauge	20 12 6
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—	
20 gauge	20 17 6
24 gauge	21 7 6
26 gauge	22 12 6
Galvanised Flat Sheets, C.R and C.A.—	
20 gauge	22 7 6
24 gauge	22 17 6
26 gauge	24 2 6

	Per ton. £ s. d.		£ s. d.
Cut Nails, 3 in. and up	22 5 0	to	23 15 0

ALL NETT.

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	1 1
Strong sheet	,,	1 3
Thin	,,	1 4
Copper nails	,,	1 3
Copper wire	,,	1 3

PLUMBERS' BRASS WORK.

Delivered in London.
Stamped by Met. Water Board.

CRUTCH HEAD SCREW DOWN BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
29/-	45/- per doz.

CHROMIUM PLATED TOILET SCREW DOWN BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
40/—	59/- per doz.

SCREW DOWN STOP COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
31/-	44/6	75/-	175/-	250/-	396/- per doz.

SCREW DOWN STOP COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
42/6	65/-	102/-	195/-	210/-	510/- per doz.

DOUBLE NET BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	9/-	14/-	24/-	37/6	54/- per doz.

HEAVY CROYDON BALL VALVES.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
33/6	55/6	85/-	165/-	237/- per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
9/-	11/-	16/6	29/-	42/-	45/- per doz.

BRASS FERRULES OF SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
9/6	11/6	20/6	26/-	37/- per doz.

DRAWN LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1¼ in.	1½ in.	2 in.	3 in.
8 lb. Lead P.	17/6	23/-	32/6	66/6 per doz.
8 lb. Lead S.	21/6	27/6	39/6	73/- per doz.

SOLDER.—Plumbers, 1/2. Tinmen's, 1/4. Blowpipe, 1/6 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil, in drums	per gallon	0 4 8
Boiled ,, ,, in drums	,,	0 4 11
Turpentine, in drums (10 gals.)	,,	0 5 3
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks). Extra for 1-cwt. kegs over 5-cwt. casks is 2/9 cwt.		60 10 0
GENUINE WHITE LEAD PAINT "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14 lb. tins) not less than 5-cwt. lots per ton delivered		81 0 0
Red Lead, Dry (packages extra)	per ton	52 0 0
Best Linseed Oil Putty	per cwt.	0 15 0
Size. XD quality	fkn.	0 3 6

Turpentine substitute can be obtained and prices vary according to the quality from 2/9 gallon upwards.

VARNISHES, &c.

		Per gallon.
Oak Varnish	Outside	0 14 0
Fine do.	,,	0 16 0
Fine Copal	,,	0 18 0
Pale Copal	,,	1 0 0
Pale Opal Carriage	,,	1 4 0
Best do.	,,	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	,,	0 18 0
Fine Copal Cabinet	,,	1 2 0
Fine Copal Flatting	,,	1 0 0
Hard Drying Oak	,,	0 18 0
Fine Hard Drying Oak	,,	0 19 6
		Per gallon.
Fine Copal Varnish	Inside	1 0 6
Pale do.	,,	1 12 0
Best do.	,,	1 2 6
Best Japan Gold Size		1 12 6
Best Black Japan		0 10 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 0
Knotting (patent)		0 15 0
French and Brush Polish		0 12 0
Liquid Dryers in Terebene		0 9 0
Cuirass Black Enamel		0 7 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

ORDINARY GLAZING QUALITY AND SELECTED GLAZING QUALITY.

per ft. super		per ft. super	
18 oz. O.Q.	2½d.	32 oz. O.Q.	5½d.
18 ,, S.Q.	2⅝d.	32 ,, S.Q.	5⅝d.
24 ,, O.Q.	3⅛d.	Obscured Sheet, 18 oz.	3d.
24 ,, S.Q.	3⅜d.	,, ,, 24 ,,	4¼d.
26 ,, O.Q.	3⅝d.	Fluted ...21 ,,	9d.
26 ,, S.Q.	4¼d.	Em'lld 18oz., 5½d., 24oz.	6⅜d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

	Per ft. s. d.
Rolled plate, ⅛ in.	5⅞d.
Rough cast double rolled, ⅛ in.	6⅜d.
Rough cast double rolled, ¼ in.	6⅞d.
Figured rolled, and Cathedral, white	6¾d.
Figured rolled and Cathedral, tinted	9½d.
Rolled Sheet	6d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ⅛ in. thick	0 10½

Rolled plate is the same price as rough cast double rolled.

	Per ft. s. d.
Wire Rolled, ¼ in. thick	0 9½
Wired Cast, ¼ in. thick	0 9½
Georgian Wired Cast	0 10

	s. d.
"Calorex" Sheet, 21 oz.	2 6
,, ,, 32 oz.	4 0
,, Cast, ⅛ in. thick	0 10
,, ,, ¼ in. thick	1 0
,, ,, ⅜ in. thick	1 2
Non Actinic Glass, ⅛ in. thick	0 9½
,, ,, ,, ¼ in. thick	1 0
,, ,, ,, ⅜ in. thick	1 2

"VITA" GLASS.

	s. d.
Clearsheet—not exceeding 1 foot	1 3
,, 2 feet	1 6
,, over 2 feet	2 0
Polished plate not exceeding 1 foot	1 6
,, ,, 2 feet	3 0
Cathedral—not exceeding 1 foot	1 3
,, exceeding 1 foot	1 9
3/16 in. Wired Georgian Design. Sizes up to 96 inches long by up to 24 inches wide	3 0

LEAD, &c.

(Delivered in London.)	Per ton. £ s. d.
LEAD.—Sheet, English, 4 lb. and up	34 10 0
Pipe in coils	34 0 0
Soil pipe	39 10 0
Compo pipe	41 5 0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton £21 10 0

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from February 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A¹	A²	A³	B	B¹
Craftsmen	1/9½	1/9	1/8½	1/8	1/7½	1/7
Labourers	1/4¼	1/4	1/3½	1/3¼	1/2¾	1/2½

Aberdeen	A	Dumfriesshire	A²	Inverness	*
Ayrshire	A	Dundee	A	Inverurie	A¹
Banff	B	Dunoon	A	Kincardineshire	A²
Berwickshire	A²	East Fife	A	Kinross-shire	A
Bridge of Allan	A	East Lothian	A	Lanarkshire	A
Broughty Ferry	A	Edinburgh	A	Midlothian	A
Clackmannanshire	A	Fifeshire	A	Monifieth	A
Doune	A	Forfarshire	A²	Moray and Nairn	B
Dunblane	A	Glasgow	A	Newport	A
Dumbartonshire	A	Greenock	A	Peeblesshire	A²
Dumfries	A¹	Hamilton	A	Perth	A

Perthshire	A²
Peterhead	A¹
Renfrewshire	A
Rothesay	A
Roxburghshire	A²
St. Andrews	A
Selkirkshire	A²
Stewartry	A²
Stirlingshire	A
Stornoway	A²
Tayport	A
West Lothian	A

* This town has its own rates: Masons, 1/7½; Carpenters, 1/7½; Slaters, 1/7½; Plumbers, 1/8; Plasterers, 1/8½, but 1/9 is paid owing to the scarcity at present; Painters, 1/7½ and Labourers, 1/3.

The information given in this table is copyright. Rates of wages in England and Wales are given on page 460.

SLIDING DOOR GEAR
Phone: WATERLOO 4311 (3 lines)
British Made.
Phone: WATERLOO 4311 (3 lines)
MECHANICAL PERFECTION
COBURN SYSTEM
Latest Catalogue on Request.
THE BRITISH TROLLEY TRACK CO., LTD.
Orange Street, S.E.1.
Agents Everywhere.

THE SCOTTISH BUILDER

NEW BUILDINGS

ABERDEEN.—HOSPITAL.—The T.C. has agreed to co-operate with the Department of Health for Scotland in the provision of an annexe to accommodate approximately 200 patient beds at Woodend Hospital.

EDINBURGH.—HALLS.—Plans prepared by Mr. Thomas Forbes Maclennan, architect, 57, Melville-st., for new Crewe Toll Church of Scotland halls.

FALKIRK.—TOWER.—The Dean of Guild Court has passed plans for the T.C. to erect a new cooling tower at the electricity works, at £2,000.

GLASGOW.—BUILDING.—Following linings granted by Dean of Guild Court: Scottish Co-operative Wholesale Society, Ltd., 95, Morrison-street, sports pavilion at Hardgate-road; Corporation General Department, timber store at Montrose-street.

GLASGOW.—HOUSING.—The Corporation approved of the arrangement between the Government and themselves for the construction of 2,272 houses in the vicinity of the Scottish Industrial Trading Estate at Hillington, Glasgow, at more than £1,200,000. The scheme will comprise the building of 1,882 houses at Pennilee, and the completion of 240 houses at Berryknowes-road and 148 houses at Homfauldhead-drive.

LANARKSHIRE.—BUILDING.—The C.C. Town Planning Sub-Committee has approved of the following plans: Clyde Valley Electrical Power Co., Ltd., Glasgow, extension of the generator house and boiler house at Clyde Mill power station, Cambuslang; J. Mitchell & Son, Rosebank-works, Miller-st., Cambuslang, extension to their works.

A Modern Approach to Building.

A paper on "A Modern Approach to Building Technique" was read on March 19 to the Institution of Engineers and Shipbuilders in Scotland by Mr. A. Miller, B.Sc.(Arch.).

TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

Tenders for A.R.P. work will be found under A.R.P. Schemes."

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Biggleswade.—Extensions to factory for Full Fashioned Hosiery, Ltd. A. Pickles, architect, 3, Wards End, Halifax : *Heliwell Shaw, Crest Bungalow, Sowerby Bridge.

Birkenhead.—New reinforced concrete floor at Bentinck-st.-wks., for T.C. : *E. R. Williams & Co., Birkenhead, £2,970.

Blackpool.—Works for C.B. : Boundary wall at new gasworks, Marton, *Direct Labour; water cooling tower at new gasworks, Marton, *Premier Cooler and Engineering Co., Ltd., Shalford.

Bournemouth.—Feeding centre in Hadow-rd., East Howe, for schoolchildren, for T.C. :—*J. A. Perris, London, £2,509 16s. 7d.

Cardiff.—New works and offices, Newport-rd., for Connies & Meaden, Ltd. : *Direct Labour.

Carn Wadrie.—Painting work at 80 houses, Boydstone-rd. W. MacNab, architect, Housing Director's Offices, 20, Trongate, Glasgow Cross :—Corporation Direct Labour Dept., £882 12s. 9d.

Clacton-on-Sea.—Block of offices for F. W. Lewellen & Co., Ltd. E. Robins Nixey, architect, Lloyds Bank-chambs. : *Canler & Sons, Clacton-on-Sea.

Glasgow.—Alterations and additions to premises, Ballater-st., Calton, for Archdiocese and Glasgow Archbishop. Will J. B. Wright & Kirkwood, architects and quantity surveyors, Carlton House Blythswood-sq. :—Excavation, brick and building, *A. Moss & Co., Ltd., Glasgow; fire escape installation, *MacLean & Co. (Metal Windows), Ltd., Glasgow.

Greenock.—Premises at Hamilton-st., for Union Bank of Scotland, Ltd. Stewart, Tough & Alexander, architects, 2, Hamilton-st. : *B. J. Anderson, Greenock; reinforced concrete work, *M. J. Shields, Kilsyth; steelwork, *Redpath, Brown, Glasgow.

Halesowen.—Extension to factory for machine shop at Master's-la., Cakemore, for Premier Stampings, Ltd., Hurst Green, Blackheath. J. C. T. Cole, L.R.I.B.A., architect, Central-bldgs., London-la., Blackheath, Birmingham : *D. Price, Cradleigh Heath, Birmingham.

Halifax.—Mortuary, Stoney Royd, for T.C. D. Lloyd Jones, B.S. : *E. & T. Bower, Ltd., Rookery-la., Halifax, £1,474.

Higham Ferrers.—Extensions to factory, Midland-rd., for Victoria Leather Co., Ltd. Talbot, Brown & Fisher, architects, 3, Burystead-pl., Wellingborough : *Robert Marriot, 171, High-st., Rushden.

Huntingdon.—Houses, for R.D.C. :—Two houses at Barham, ‡M. J. Allen & Sons, £770; Gilmores, Slough, £1,080; Stretton Bros., Yaxley, £1,005; W. Ferrar & Sons, Peterborough, £992; H. V. Goodwin, Ltd., Yaxley, £1,025; J. H. Price, Little Stukeley, £1,156; two houses, Brampton, ‡M. J. Allen & Sons, £760; Gilmores, £1,065; Stretton Bros., £1,095; W. Ferrar & Sons, £998; H. V. Goodwin, Ltd., £1,030; J. H. Price, £1,109; two houses, Sawtry, ‡M. J. Allen & Sons, £775; Gilmores, £960; Stretton Bros., £978; W. Ferrar & Sons, £949; H. V. Goodwin, Ltd., £1,025; S. Brawn, £920 10s.; V. H. Price, £1,141; two houses, Upton, ‡M. J. Allen & Sons, £790; Gilmores, £1,145; Stretton Bros., £1,002; W. Ferrar & Sons, £988; H. V. Goodwin, £1,030; V. H. Price, £1,146; two houses, Upwood, ‡M. J. Allen & Sons, £770; Tatt & Marriott, Ramsey, £917; G. Shepperson, Ramsey, £834 11s. 2d.; Gilmores, £1,125; Stretton Bros., £1,080; W. Ferrar & Sons, £978; H. V. Goodwin, £1,020; V. H. Price, £1,121.

Lanarkshire.—Works for C.C. :—Fencing work at the County housing schemes, *Hairmuyres Forestry Dept., £2,430 7s. 3d.; alterations and additions at Dalserf primary school, Hawksland primary school and schoolhouse (John Stewart, architect, Albert-st., Motherwell-Wishaw), *Lanarkshire County Direct Labour Dept., Motherwell-Wishaw; alterations and additions to "Viewgash" police station and houses (J. Stewart, architect and quantity surveyor), *Lanarkshire County Direct Labour Dept.; alterations and additions to Public Assistance offices, Bishopbriggs (J. Stewart, architect), excavation, brick and mason, *Lanarkshire County Direct Labour Dept.

Lancaster.—Internal and external decorating and painting at Gas Offices, Scaleford and Thetis House, West-rd., for T.C. : *S. B. Wilding & Sons, Ltd., 14, Damside-st., Lancaster.

Leeds.—Pulling down existing brick walls and gates to Old Hope Foundry, Mabgate, and erection of new brick wall and gates along improvement line from new Post Office garages to Town Tailors' Building, for T.C. W. S. Cameron, City E. *H. Johnson and Sons (Farsley), Ltd., New-st., Farsley, nr. Leeds, £134 4s. 5d.

Leicester.—Factory for British Thomson-Houston Co., Ltd., Mill-rd., Rugby : *Sir Robert McAlpine & Sons (London), Ltd., 50, Pall Mall, London, W.1.

Leyton.—Elimination of level crossings, Grove Green-rd., Leytonstone, for T.C. and Essex C.C. Rendel, Palmer & Tritton, engineers : ‡W. & C. French, Ltd., £56,848 18s.

Liverpool.—Rebuilding after fire of portion of premises for Henry Wilson & Co., Ltd., Cornhill-wks., Cornhill : *Roberts & Sloss, Ltd., 19, Baker-st., Liverpool, 6.

¶London (Air Ministry).—Contracts placed for week ended April 6 :—

Shed : Glasgow Steel Roofing Co., Ltd., Glasgow.

Landing ground, runways, etc. : B. Sunley & Co., Ltd., London.

¶London (H.M.O.W.).—Tenders accepted for week ended April 5 : Building work—S. W. Foster, Ltd., Coombend, Radstock, near Bath; J. & A. Brazier, Ltd., Worcester-rd., Bromsgrove; Moston Brick and Building Co., Ltd., Kenyon-la., Moston, Manchester, 10; Moore & Wood, Ltd., 262, Langham-rd., N.15; J. Chapman & Sons, Ltd., Knighton Junction-wks., Leicester; and Wm. Crane, Ltd., 80, Forest-rd., Nottingham.

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London (Miners' Welfare Commission).—New pithead baths : Penrikyber (South Wales), *Haymills (Contractors), Ltd., Hanger Green, Western-avenue, London, W.5, £22,751; and Grayshill (Lanarkshire), *W. Fyfe, Kirkhill Goods Station, Cambuslang, £15,225.

London (War Department).—Contracts placed during week ended March 30 :—

Hampshire, building work, Wm. Blood, Ltd., 43-45, Durham-st., S.E.11.

Clackmannanshire, building work, A. Headridge, Ltd., 61, Stirling-rd., Causewayhead, Stirling.

Scottish Command, hutting, two contracts, H. C. Janes, Ltd., 189, High Town-rd., Luton.

Suffolk, miscellaneous work, Walter P. Cross, Ltd., Langer-rd., Felixstowe.

Kent, hutting, Old Forge Estates, Ltd., 2, Hadlow-chams., Hadlow, Sidcup.

Berkshire, miscellaneous work, E. P. Gilkes and Sons, Ltd., 12, Temple-sq., Aylesbury.

Cumberland, building work, J. B. C. Hardman (Contractors), Ltd., Cuerden Mill, Bamber Bridge, Preston.

Surrey, miscellaneous work, G. Stow and Co., Ltd., Mill-st., Slough.

Cheshire, hutting, J. B. Johnson and Co., Ltd., 108, Crown-st., Liverpool.

Loughborough.—Plant house, Water Works, Nampantan, for T.C. W. Granger, B.S. : *T. Barker & Sons, 14, Swan-st., Loughborough.

Macclesfield.—Two mass-concrete reservoirs, at Hollins and Rulow, for T.C. E. Hamson, B. and Water E. H. Lapworth & Partners, consulting engineers, 25, Victoria-st., London, S.W.1 : *Holborn Construction Co., Ltd., London, E.C.1, £20,065 3s. 11d.

Manchester.—100 houses, Wythenshawe, and 190 flats, Gorton and Miles Platting, for T.C. J. Hughes, Director of Housing : *Direct Labour Dept.

Manchester.—Alterations to premises, 413-419, Ashton Old-rd., and Wovenden-st., Openshaw, for A. Riley, Ltd., 417, Ashton Old-rd. Newsome & Broadbent, architects, 2, Blue Boar-court : *N. B. Beattie & Co., Ltd., Gradwell-st., Stockport.

Mansfield.—Extension to shoe factory, Dallas-st., for Mansfield Shoe Co., Ltd., Cook, Howard & Lane, architects, Brunts-chambs., Leeming-st. : *H. Baggaley, Baums-la., Mansfield.

Menston.—External painting of several buildings, Mental Hospital for West Riding Mental Hospitals Board. W. E. H. Burton, architect and engineer, Wakefield : *T. W. White, Horton-la., Bradford, £248.

Morpeth.—Rebuilding "Turk's Head" hotel. S. H. Lawson, architect, Emerson-chambs., Newcastle : *R. Carse & Son, Oldgate, Morpeth.

Newcastle-on-Tyne.—Floors for large block of shops, etc., junction of Blackett-st. and Northumberland-st., for Montague Burton, Ltd. General contractors : *R. Hudson & Sons, St. Mark's-cres., Sunderland; floors : *Concrete, Ltd., London, W.C.2.

Newcastle-on-Tyne. — Alterations, "Lord Nelson" inn, Sandgate, for J. W. Cameron and Co., Lion Brewery, West Hartlepool. A. Pearson, architect, 5, Melvyn-gdns., Fulwell, Sunderland. *Constables, Croat House, Collingwood-st., Newcastle-on-Tyne.

Newcastle-upon-Tyne.—Cold-storage building, for J. & W. Lowrie, Brinkburn-st. J. N. Fatkin, architect, 17, Brigg-market : *Alex. Anderson (Contractors), Ltd., Stanmore-rd., Newcastle.

Newcastle-upon-Tyne.—Seventh entrance to Victoria Tunnel air raid shelter, Ridley-pl., for City Council. City E. *Gustavus Bailey, Ltd., (approx.) £5,640.

Peterborough.—Pumping station at Etton waterworks, for T.C. Architect, City Engineer, Architects' Dept. Quantities by Architects' Dept. *Jellings Builders, Ltd., West[illegible]od Bridge, £4,785.

Newcastle-under-Lyme.—Extension to valve-house at Chesterton gasworks, for T.C. A. Cotton, B.S. :—

Turner & Richards...	£361 5
G. Rowe & Son	361 0
H. Grant & Son	359 0
Maddock Bros, Ltd., Audley ...	354 0
F. C. Gibson, Ltd., Shelton ...	350 0
J. Jones, Ltd.	349 0
Madew & Wardle	333 15
J. W. Walton	312 0
H. Stubbs	310 0
Baddeley Bros., Wolstanton ...	310 0
*T. Hughes, 22, Bagnall-st. ...	295 0

(Remainder of Newcastle.)

Prestwich.—Alterations and adaptation of existing outbuildings as mortuary at Brooklands, Bury Old-rd., for T.C. Handel Kay, B.E. and S. : *J. Webster & Co., Goodman-st., Collyhurst, Manchester.

Rocester (Staffs).—Extensions to Abbotsholme School, for Board of Governors. Oakley & Sanville, AA.R.I.B.A., architects, 60, King-st., Manchester : *Ward & Godbehere, Smithfield-rd., Uttoxeter.

Rochdale.—Interior decorating of wards at Infirmary, for Board of Management: *J. W. Nord, Rochdale.

Rothwell.—Conversion of tram-shed, Wood-la., Jaw Bones, into mortuary, for U.D.C. F. Hartley, architect, Council Offices : *J. Chapman & Sons (Rothwell), Ltd., West Parade, Rothwell, near Leeds, £332 12s. 3d.

Royton.—Internal decorations at 121 houses at Oozewood, for U.D.C. L. Cookson, S. : *H. Hindle, Royton; *W. B. Stott & Co., Ltd., Oldham; *W. S. Mawdsley; *Thornton Schofield, Chadderton.

Seldgefield.—Conversion of 41 houses to water carriage system to include sinks, for R.D.C. *C. T. Elliott, 46, Ettrich-gr., Sunderland.

Shaftesbury.—Provision and laying of about 5,850 yds. of 8-in. trunk main and fittings, between Mere and Gillingham, and of about 1,900 yds. of 3-in. main at Kington Magna, for R.D.C. A. J. Allen, E., Half Moon-st., Sherborne :—

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Sheffield.—Grocery warehouse, junction of Buchanan-st. and Lytton-rd., for John Shentall, Ltd., Whittington Moor, Chesterfield. W. A. Derbyshire, architect, 26, Gluman-gate, Chesterfield: *W. Malthouse, Ltd., Sharrow, Sheffield, 8.

Sheffield.—Electric-light installation at Fulwood and Woodhouse West council schools, for T.C. : *W. Malthouse, Ltd., Derbyshire-la., Sharrow, Sheffield, 8, £307 5s.

Sheffield.—Church at Barnsley-rd., for Rev. R. Roseveare. T. H. Lyon, Middlecot, Ilsington, architect : *W. G. Robson, Banforth-st., Sheffield, 10.

Shrewsbury.—Extension to factory, Harlescott, for Chatwood Safe Co., Ltd. W. J. Green, architect, 32, Paradise-st., Birmingham, 1 : *J. R. Deacon, Lombard-st., Lichfield.

Smallburgh.—Painting houses in various parishes, for R.D.C. A. L. Taunton, S. : 26 houses, *Murrell, Cork & Bros., North Walsham, £104; 20 houses, *Brinded & Durrant, Hickling, Norwich, £69; 10 houses, *H. J. Turner, The Green, Stalham, Norwich, £53, and *L. W. Ireson, 9, West End, Costessey, Norwich, £19 10s.; 12 houses, *W. Tickner, School-la., Sprowston, Norwich, £21.

Stoke-on-Trent.—Re-erection of salt store, on land adjoining Burslem sub-works, for T.C. : *C. Cornes & Son, Hanley, £660.

Stretford.—Repairs to the carriageway of Hadfield-st. (Turner-st. to Ogden-st.), for T.C. : *Wilson & Wilkinson, £749 12s. 6d.

Sunderland.—Alterations, "Victor Hotel," Victor-st., and "Victoria Hotel," Fora-st., for Newcastle Breweries, Ltd., Haymarket, Newcastle-on-Tyne. Plans by Capt. F. T. Blumberg, staff architect. *Scrafton and Son, Brooke-st., Sunderland.

Tipton.—Factory, Waterloo-st., for Threadgill Electro Deposits, Ltd., Union-st. : *J. Edwards & Sons, Oxford-st., Dudley.

Tipton.—Extension to engineering works off Alexandra-rd., for Lee, Howl & Co., Ltd. : *Mark Round & Sons, Ltd., New-st., Dudley.

Tipton.—Office and works, Locarno-rd., for Lockerbie & Wilkinson (Tipton), Ltd., Alexandra-wks. : *F. J. Timins, Sedgley-rd., Woodsetton, near Dudley.

Waltham.—Decoration, etc., at isolation hospital, for Joint Hospital Board. Clerk, Isolation Hospital, Honey-la., Waltham Abbey. Tooley and Foster, architects, Buckhurst-hill, architects. *Sykes and Son, Ltd., 10, Essex-st., Strand, W.C.2, £192 4s.

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56, EBBISHAM ROAD, WORCESTER PARK, SURREY.

Warrington.—Governor house, for T.C. : *R. & S. Smith, Orford-wks., Warrington.

Whitby.—Exterior painting, 106 houses, for U.D.C. : *J. Leng, Whitby.

Whitefield.—Alterations to offices, 254, Bury New-rd., for Prudential Assurance Co., Ltd., Holborn Bars, London, E.C.1. G. A. Ccombe & F. N. Waller, architects : *W. Kirk, 108, Water-st., Ratcliffe, Manchester.

Woolwich.—Works for B.C. : Air raid shelter, vacant shop, Well Hall-rd., near Westmount-pl.—supplying and fixing steelwork :—

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Workington.—Extensions to Infirmary, for Governors. Oldfield, Simpson & Saul, architects, John-st. : *Leslie & Sons, Ltd., Couch-rd., Whitehaven.

York.—Reinforced concrete intake chamber in River Foss and laying c.i. pipes across Foss Island's-rd., for T.C. C. J. Minter, City E. and S. : *W. Birch & Sons, Ltd., Spen-la., York.

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